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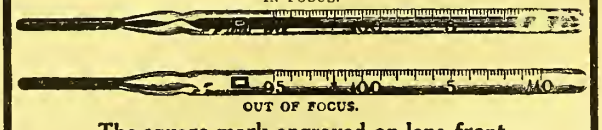

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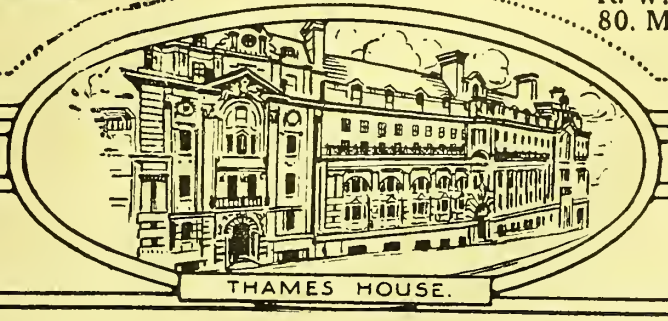

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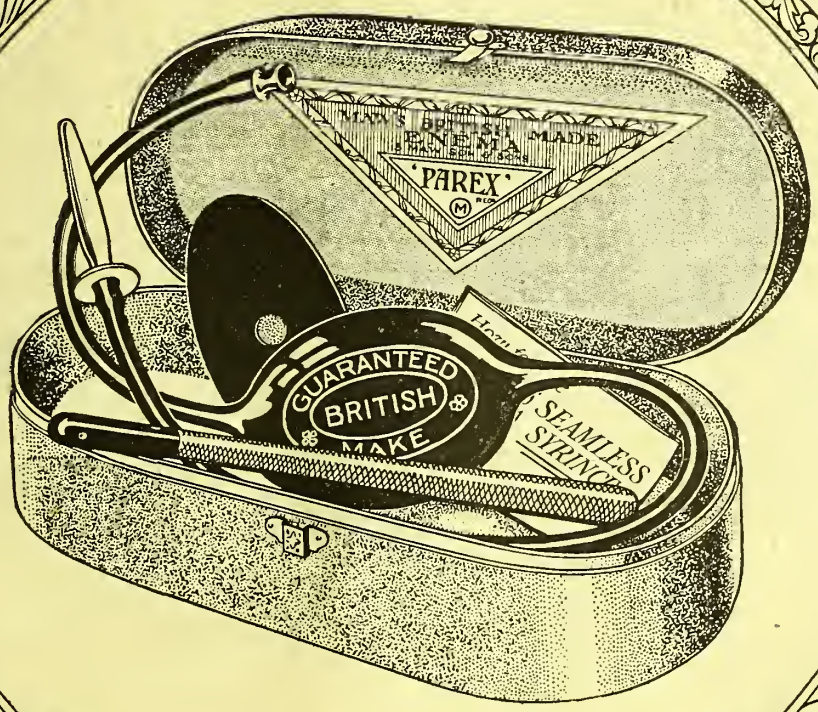

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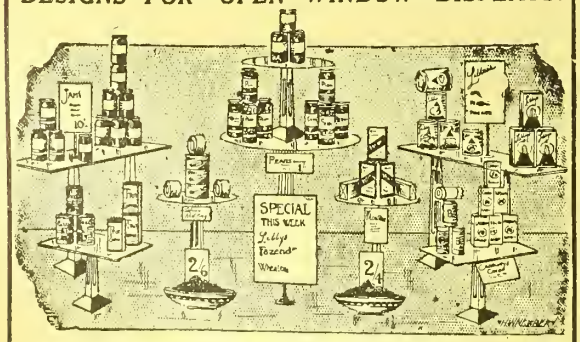

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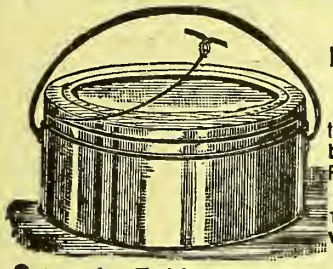

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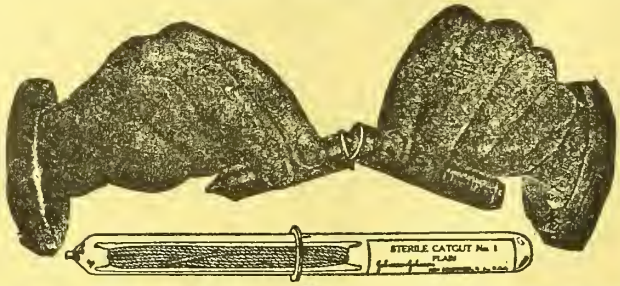

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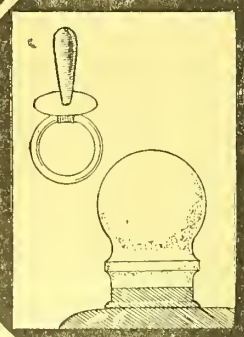

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A Profit of 37·8 per cent. on selling price.

Send for full particulars at once, as this special offer is likely to be withdrawn shortly.

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BRITISH NOW

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Chemical Works,
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SANDALWOOD OIL

(From SANTALUM ALBUM).

For **80** years

we have distilled this oil for Medicinal & Perfumery purposes from *Santalum album.* Purchasers therefore relying on our experience, dating back to

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GET YOUR SUPPLIES QUICKLY

In Tins, Sticks and Bowls

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ESTABLISHED 200 YEARS.

You Reap the Profits!

The above is only one of the many forceful advertisements now appearing in the most influential National publications and Fashion periodicals telling housewives that Iron-mould is no longer immovable. MOOVOL contains no injurious acids and is not harmful to the most delicate fabric.

ARE YOU PARTICIPATING IN THE PROFITS?

Send a P.C. for trial stock and display material to

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8d.

Make your old Hat a new one.

In bottles, 8d. each, in separate neat cartons, with suitable brush.

These Dyes are a distinct invention, dyeing the straw without an objectionable varnished appearance, and producing the effect of new goods.

NO GLOSS. NO POLISH.

On the P.A.T.A.

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PEAU D'ESPAGNE
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RELIABILITY

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"Vaseline" is the Registered Trade Mark of the

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Calox Selling Points *for* Chemists

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French Depot—Messrs. ROBERTS & CO., 5 Rue de la Paix, Paris.
Spanish Depot—COMPANIA DENTAL ESPANOLA, Cedaceros 4, Madrid.
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PINE, 7/6 doz.

PINE & HENNA, 8/9 doz.

PINE.

In Envelopes, 7 in box, **7/6** per dozen boxes.

PINE & HENNA.

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Customer's name free on 3 dozen boxes or bottles.

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Pat. No. 20631-1909

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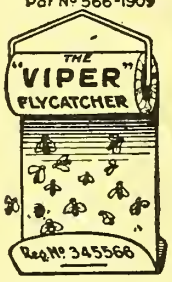

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Advertising matter post free on receipt of a postcard.

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ESTABLISHED 1893. *TELEGRAMS: "DAISY LEEDS."*

SAVE 3/- PER GALLON

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LABORATORY PORCELAIN

IN STANDARD FORMS & SIZES.

THE WORCESTER ROYAL PORCELAIN Co., Ltd., WORCESTER, ENGLAND.

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Trade Mark Applied for.

A MILK-CURDLING FERMENT RECOMMENDED as EQUAL to STANDARD

RENNET

FOR

CHEESE MAKING.

"RENSIN" is a new product of the Armour Laboratories, intended to meet the most exacting demand of the trade for a reliable curdling agent that does not require any change in the customary methods or processes of Cheese making.

"RENSIN" has been carefully tested and proven in both the Laboratory and the Cheese Factory.

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"RENSIN" The price is less than that of most brands of Standard Rennet.

"RENSIN" is supplied in Quart Half-Gallon, and Gallon Bottles, 10-Gallon Kegs, and 36-Gallon Barrels. Order from your Wholesaler.

Samples gratis to Chemists and Cheese Makers, if request is made upon business stationery.

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MOVING

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(Trade Mark)

It is being used more and more for the home preparation of humanised milk for infant-feeding

IN YOUR DISTRICT

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For directions see Wellcome's Pharmacists' Diary

G 794

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London Exhibition Room: 54, Wigmore Street, W.

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A Weekly Journal of Pharmacy and of the Chemical and Drug Trades.
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Head Office: 42 CANNON STREET, LONDON, E.C. 4.
Telegrams: "Chemicus Cannon, London." Telephone 3617 Central (three lines).
Branches: ADELAIDE, MELBOURNE, AND SYDNEY, AUST.

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Trade-marks Applied for.

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration, see "The Chemist and Druggist Diary," 1917, p. 220.

(*From "The Trade-marks Journal," August 1, 1917.*)

"POLMAR"; for perfumery (48). By P. Marks & Co., Ltd., 23 and 24 Old Bailey, E.C. 4. 378,676.

"JICKY," "SUPERDULCI," "QUAND VIENT L'ETE," "L'HEURE BLEUE"; for perfumery, etc. (48). By Société Guerlain, 68 Champs Elysées, Paris. 378,779/783/785/786.

(*From "The Trade Marks Journal," August 8, 1917.*)

"AEROVARN"; for all goods (1). By T. Parsons & Sons, 315-317 Oxford Street, W. 1. 378,564.

"VAPURO"; for a disinfectant and insecticide (2). By Campion, Innes & Co., 58F Hatton Garden, E.C. 1. 377,937.

"HORSEPA"; for a veterinary preparation (2). By T. C. Woods, Worsley Street Dye Works, Hulme, Manchester. 378,594.

"BLOOD PURIFIER JONGKEENA BRAND"; for medicinal chemicals (3). By Ybo Tan, Raffles Square, Singapore, S.S. 377,488.

Device of statue of man, for all goods (3) and for waterproofed silk (31); "DISCUS," for surgical instruments, etc. (11), waterproofed silk (31), indiarubber goods, etc. (40), and for goods (50). By S. Maw, Son & Sons, Ltd., 7-12 Aldersgate Street, E.C. 1. 378,458/461 (Associated), 378,432/456/457/434 (Associated).

"MEDICINAL PETROLEUM JELLY SALVOLINE BRAND"; for medicinal chemicals (3). By Meade-King, Robinson & Co., 22 Water Street, Liverpool. 376,482. (Associated.)

European War News.

China Joins the Allies.

It is officially announced that China has declared war against Germany and Austria, her declaration dating from 10 A.M. on August 14.

Import and Export Notices.

AUSTRALIAN COMMONWEALTH.—The importation of hops and the exportation of empty bottles has been prohibited, except under licence.

FRANCE.—The "Journal Officiel" (July 20) publishes a notice stating that all goods to be sent in transit through the United Kingdom will not be allowed to leave the United Kingdom unless a special authorisation is obtained by the sender in France from the Transhipment Committee of the War Trade Department, 4 Central Buildings, Westminster, London, S.W. 1. The Board of Trade notify (through the "Board of Trade Journal") that importers of goods from France would avoid much inconvenience and delay if, before ordering such goods to be despatched, they satisfied themselves by inquiry at the Department of Import Restrictions, 22 Carlisle Place, London, S.W. 1, that licences would be available on the arrival of the consignment.

GERMANY.—From July 1, 1917, the transit through Germany to Austria of resins, stearic acid, palmitic acid, and similar materials for the manufacture of candles, soap, fixed oils, spirit, lac-varnishes, and glue is prohibited, together with that of oilseeds, nuts, animal fats, by-products of oil-pressing, margarine, vegetable tallow, etc.

ITALY.—The Italian "Gazzetta Ufficiale" (July 17) contains a decree which extends, until June 30, 1918, the authority to allow the duty-free importation into Italy of tea-residues to be employed in the manufacture of caffeine.

JAPAN.—The Board of Trade are informed that the Japanese Government have decided to grant permits for the export of aniline salts, alizarine dyes, and black cryogene dyes, the output of these salts and dyes in Japan being in excess of Japanese requirements. It is understood also that licences will be issued for certain other dyestuffs of guaranteed quality.

SWITZERLAND.—The London "Gazette" (August 10) contains several amendments relating to exports from the United Kingdom to Switzerland. The following have been deleted from the prohibitions: Glucose, solid; naphtha; naphthylamine (alpha and beta naphthylamine); naphthol (alpha and beta naphthol) and similar products; naphthaline and its compounds; platinum; turpentine varnishes, gum. The following headings have been added to the prohibitions: Benzo-naphthol, nitrate of lime, degras; dental apparatus, teeth sets and their rubber accompaniments; glucose, glucose, solid, for the manufacture of artificial silk; mosses, Iceland, Irish, carragheen and sphagnum; naphtha; naphthol; naphthaline; naphthylamine and similar products; platinum in all forms, including manufactures (except platinum jewellery); salophene; sponges of all sorts and waste of sponges; Turkey-red oil and other sulfori. cinates; turpentine and mixtures containing turpentine; varnishes, all kinds; and wood spirit.

UNITED KINGDOM.—The following amendments have been made to the list of prohibited exports: (A) Zinc oxide and mixtures containing zinc oxide; (A) zinc sulphide and mixtures containing zinc sulphide. The previous headings were (A) zinc oxide and (B) zinc sulphide. Ethylic alcohol, mixtures and preparations containing (not otherwise prohibited), have been added to the "A" list. Tanning extracts and substances for use in tanning, formerly in the "A" list, have been deleted. Pumice-stone, including powdered pumice, has been placed in the "C" list, and (A) oil, shark, and mixtures containing such oil, is a new entry, as is (A) colza or rape-seed oil. The Director of the War Trade Department announces that, except in special circumstances, applications made for licences to export synthetic dyestuffs will only be considered if accompanied by a certificate from the actual manufacturer or his accredited agent to the effect that the goods have been sold expressly for export to the destination mentioned in the application. Applications now before the Department will, however, be considered by reference to the circumstances arising in each particular case.

UNITED STATES.—The Exports Council have notified that licences are now required to export sulphur, cake saltpetre, nitrate of potash, benzol, rosin and turpentine, toluol, lubricating-oils, soap and soap-products, and vegetable oils.

Personalia.

Second-Lieutenant H. Graham Barker, of the Household Cavalry, a director of Corbyn, Stacey & Co., Ltd., was recently awarded the Military Cross.

Mr. David Henderson, Ph.C., 549 Lisburn Road, Belfast, has received official intimation that his brother, Second-Lieutenant T. Henderson, Royal Irish Rifles, is missing.

Private E. A. Hunwick, West Yorkshire Regiment, who prior to joining up was with W. A. Wharram's, Ltd., chemists, Vicar Lane, Leeds, is suffering from gas-poisoning.

Mr. W. C. B. Daly, Australian representative of F. Schutze & Co., Ltd., has been gazetted second-lieutenant in the Sixth Division, Australian Forces. He is at present in London.

Private W. J. M. Key, Royal Scots, attached H.L.I., son of and formerly assistant with Mr. G. B. Key, chemist and druggist, Kirkcaldy, has been wounded for the second time, and is in hospital in London.

Bombardier T. R. Williams, R.G.A., eldest son of Mr. T. R. Williams, chemist and druggist, Shortlands, Kent (of Wright, Layman & Umney, Ltd.), has been wounded in the face by a shell, and is in hospital in France.

A Tablet has been placed in St. Thomas's Church, Brampton, to the memory of the late Captain Frank B. Robinson, Sherwood Foresters, son of Major W. B. Robinson, of Robinson & Sons, Ltd., surgical-dressing manufacturers, Chesterfield. Captain Robinson fell at Gommecourt in July 1916.

Sergeant F. F. Eddie, of the Australian Army Medical Service, called at the *C. & D.* office last week. He was apprenticed with Mr. E. H. Leete, chemist, Malvern, Victoria, and enlisted soon after war was declared. Sergeant Eddie, who has seen service in Gallipoli, Egypt, and on the Western Front, is in good health.

Sergeant Lewis R. Wright has been awarded the Military Medal for bravery under heavy shell-fire. Accompanied by a stretcher-bearer, he went out and rescued a wounded comrade in front of the lines. He joined the King's (Liverpool Regiment) in October 1914, prior to which he was engaged with Boots, Ltd., South Road, Waterloo, Liverpool.

Lieutenant L. J. H. Joye, Manchester Regiment, who was severely wounded on July 31, is in hospital in this country. Lieutenant Joye, who is the eldest son of Mr. J. Joye, chemist and druggist, London Street and Chapel Street, Southport, joined the King's (Liverpool Regiment) in October 1914, and in October 1915 was wounded in the arm and both eyes.

Mr. William Leslie Atkinson, who has just been gazetted second-lieutenant in the Royal Engineers, is in his twentieth year. He enlisted as a private in the London Scottish in September 1914. His elder brother is an officer in the Middlesex Regiment, and fought in Flanders in 1914 and 1915, being wounded at Hooge during the second battle of Ypres. They are the sons of Mr. A. Proctor Atkinson.

Among the list of awards for valuable services rendered in connection with the war appears the name of Lieutenant and Quartermaster E. C. Bennison, who is promoted to the honorary rank of captain. Captain Bennison is a pharmaceutical chemist and a Fellow of the Chemical Society, and before the war was manager for T. & W. Southall, Birmingham.

Second-Lieutenant W. A. Strickland (Middlesex Regiment, attached R.F.C.), elder son of Mr. E. F. Strickland, chemist and druggist (Bruce's Ltd.), Ealing, who was missing on July 12, is now reported a prisoner of war. He joined the 1st Public Schools Battalion in September 1914, when seventeen, and while a student at Guy's Hospital. He went to France in 1915, afterwards gaining a commission in the Middlesex Regiment. He was attached to the 7th Loyal North Lancashires for some time, and transferred to the Royal Flying Corps in the early part of this year.

Miscellaneous.

Lejonet's Apoteket Droghandel, Stortorget 8 and 19, and Söderg. 8, Malmö (no connection with Lejonet Apoteket Droghandel, Gothenburg), has been placed on the statutory list of firms with whom trading is prohibited from the United Kingdom.

Enemy Firms to be Wound Up.—Bender Composition Cork Co., Ltd., 89/90 Leadenhall Street, London, E.C., cork cutters and manufacturers. *Controller*: H. J. Morland, 3 Frederick's Place, Old Jewry, London, E.C. 2.—Lieblich Nansen & Co., Ltd., 31 Queen Victoria Street, London, E.C., drug-merchants. *Controller*: Sir John Craggs, 3 London Wall Buildings, E.C.

Military Tribunals' Decisions.

Ashton-under-Lyne.—Conditional exemption was granted to Mr. Geoffrey Gladding, research-chemist under Professor H. B. Dixon.

Bakewell.—On the application of Mr. Edward G. Carrington, chemist and druggist, six months' exemption was granted to his manager, Mr. T. R. Swift, chemist and druggist.

Battersea.—Mr. W. Birchmore, manager for W. C. Birchmore & Sons, medicinal-bottle merchants, was granted three months' exemption.

Eton.—The Tribunal heard an application for exemption by Mr. John Robert Jewson, Ph.C., Station Parade, Gerrard's Cross. The application was refused.

Lancashire.—An appeal was made at Lancaster on August 10 by Mr. Richard George Postlethwaite, chemist and druggist, Morecambe, for further exemption. A letter was read from the Clerk to the Lancashire Insurance Committee, stating that in March 1916 it had been decided to leave the question of the calling-up of chemists entirely to the local Tribunals, but that since then two Morecambe pharmacists had resigned from the panel, reducing the number to six. As a great many insured persons are now working in the town, the Appeal Tribunal was requested to retain Mr. Postlethwaite's services. The National Insurance Pharmaceutical Committee wrote pointing out that any further reduction in the panel of chemists would inflict hardship on insured persons, and that dispensing was being done at such high pressure already that any further increase of work would involve the risk of errors. The Military Representative raising no objection, Mr. Postlethwaite was granted exemption till December 31.

Oswestry.—Exemption until January 1 has been granted to Mr. Wm. Ernest Day, partner with Mr. J. H. Llewellin, chemist and druggist.

Oxford.—Mr. Thomas John A. R. Burbank, chemist and druggist, 116 Walton Street, obtained two months' temporary exemption for Mr. Cuthbert H. S. Forster, chemist and druggist, the manager of his shop at 36 South Parade, Summertown.

Witney.—The appeal of Mr. G. W. Dutton, chemist and druggist, grocer and bank agent, Bampton, for his unqualified son was allowed, and the exemption varied to three months.

Worcestershire.—On the application of Mr. Alfred Mander, Ph.C., Belle Vue Pharmacy, Great Malvern, the Tribunal granted Mr. Harold Leslie Bryant, chemist and druggist, final exemption till September 30.—Mr. John Gibbs, chemist and druggist, of Upton and Tewkesbury, unsuccessfully appealed on behalf of an unqualified son who helps him as dispenser and on a twenty-eight acre holding.

India and the East.

(From the "C. & D." Correspondents.)

Indian Trade Commissioner.—The Secretary of State for India has sanctioned the appointment of a Trade Commissioner for India in London, with an Indian assistant. He will devote special attention to questions relating to the development of Indo-British trade.

Malabar Soap-industry.—The Calicut correspondent of the "Madras Times" understands that Lever Bros., Ltd., have decided to start a soap-industry on the Malabar coast, and that the factory will probably be located at Feroke, where a site has already been inspected for the purpose.

Indian Opium.—The investigations on the poppy-plant conducted at Cawnpore by Messrs. Leake and Annett have already yielded important results. It has been shown that the variable and generally low morphine-content of Indian opium was largely a matter of the method of collection practised, and that, with some alteration in method, the standard required for medicinal purposes can be fully maintained.

Cocaine by Inland Post.—The Ceylon Post Office Ordinance, 1908, is to be amended by adding a further proviso so as to permit the transmission by post of cocaine to persons licensed to possess or deal in cocaine and upon the prescription of a qualified medical practitioner. The prohibition against sending cocaine by post, as it now exists, was intended only to regulate the introduction of cocaine into Ceylon, and not to interfere with its legitimate use within the island.

English and Welsh News.

The Editor would be obliged if subscribers would send him marked copies of newspapers containing items of interest for insertion in this or other news sections of the "C. & D."

Pharmacists in the Army.

On August 2 Sir A. Keogh, Director-General of Army Medical Service, received a deputation of members of the Council and officers of the Pharmaceutical Society, who laid before him the complaints which had been received concerning the position of pharmacists in the Army. The deputation consisted of the President, the Parliamentary Secretary, Messrs. Cuff, Currie, Jenkin, Keall, and Skinner, together with Mr. Chater and Mr. Mallinson, and was very cordially received. In the result the Director-General promised to set up a small private Committee of two or three of his officers to meet in conference two or three representatives of the Society, so that the whole question of the employment of pharmacists in the Army Medical Service might be carefully examined.

The Southend Raid.

A raid by enemy aeroplanes took place on Southend on August 12, when a good many bombs were dropped, causing thirty-five deaths and doing a considerable amount of material damage. A bomb dropped at the top of the Broadway, near the Technical Schools, wrecked the building, and damage was also done by one dropped in the same thoroughfare. The pharmacies of Mr. S. F. Body, Mr. E. A. Holloway, and Mr. J. H. Heywood (Bell & Co.) are all fairly close, but although many shops in the vicinity have had their windows smashed, these chemists' shops seem to have escaped practically scot-free. Bombs were dropped at other places from Leigh to Southchurch, but the chemists' shops escaped serious damage. Mr. R. C. Wren (Potter & Clarke, Ltd.) lives in Drake Road, Westcliff, and his house was exposed to the effects of bombs which dropped near by. Many windows on the ground floor of the house were blown out, the greenhouse was much damaged, and panes of glass at the back were smashed. The roof is also peppered with pieces of shell and shrapnel, and the lawn full of holes from the same causes. Although the whole family were at home, all the members escaped injury.

Society of Apothecaries of London.

At the Assistants' examination, which commenced on July 24, the following candidates were granted the certificate of qualification to act as an assistant to an apothecary in compounding and dispensing medicines:

Anderson, A. F.	Grave, George	Myers, R.
Anderson, E. C.	Green, F. M.	Neville, E.
Andrews, B. V.	Groves, A. M.	Newton, E. M.
Armitage, A. M.	Gubbin, E. D.	Nisbet, R. M. J.
Atkinson, E.	Gys, M. M.	O'Sullivan, P. G. H.
Baker, A. W.	Harris, E. G.	Parker, Q.
Barnes, M.	Headley, M.	Perkins, J. H.
Bergan, G.	Healy, E.	Pidgeon, E. F.
Beringer, M.	Heath, M. E.	Pipkin, E. A.
Blair, A. D.	Henderson, E. F.	Plumb, D.
Bolton, E.	Heyman, A. F.	Poplett, D. H.
Bones, E. M.	Hodges, E. K.	Ransom, N. W.
Bowring, L. M.	Hossell, M.	Rennick, G. F.
Brocklebank, C. E.	Howley, C. F.	Rooke, M. H.
Brown, K. D.	Hoyle, V.	Samuelson, F. M.
Bryan, G.	James, A.	Sargent, J. M.
Carter, M. L.	Jenkins, N. K. M.	Seymour, R. E.
Churchyard, I. B. E.	Jones, Edith Mary	Shepherd, R. M.
Clapham, E. M.	Jones, Elsie Maud	Smith, L. E.
Coles, A. M.	Jones, K. L.	Stevenson, J. M. K.
Coslett, M.	Jones, Walter J.	Tancock, N. M.
Davis, M. B.	Kay, L. M. de W.	Taylor, E. G.
Dawson, D. M.	Kennedy, K. M. S.	Thatcher, A.
de Bruyn, S. G.	Langsford, C. M.	Thomas, F. M.
Demarquet, M. M. L.	Lattey, C. M.	Thompson, M. H.
Dennehy, E. G. I.	Lee, P. M.	Titley, O.
Donbavand, S.	Lloyd, M.	Townsend, G.
Drake, Q. G. F.	Lowe, K. M.	Turner, M.
Eddy, L. E. B.	McDaniel, P.	Usborne, H. M.
Ellis, E. M.	McDonnell, Thos. M.	Vance, A. M.
Elsey, G.	McMinn, M. A.	Warne, G. B. C.
Fellowes, W. M.	McNaughtan, J. C.	Webber, E. P.
Firth, L. N.	Martin, C. M.	Whitaker, A.
Fleury, F. L.	Messervy, A. W. M.	Whitehead, B. I.
Fox, N.	Millard, E. J.	Willoughby, E. A.
Frith, S. M.	Mirams, I. M. A.	Woodhouse, V. M.
Garratt, D. J.	Moorshead, A. F.	Wynyard, F. J.
Garrett, D. J.	Morris, E. G.	Young, N.
Glennie, M. C.	Mowll, L.	

Birmingham.

Local specialities have some excellent window-displays locally which must have the effect of increasing sales.

Owing to the dearth of qualified *locum-tenentes* and the need of recuperation, a well-known suburban pharmacist has closed his establishment for a fortnight.

The Electrical-supply Department of the Birmingham Corporation, following the lead of the Gas and Water Departments, are increasing their charges after September.

Anderson, Clarke & Whitelaw, Ltd., surgical-instrument makers, Broad Street Corner, have obtained a patent for a new arrangement for the working of artificial arms.

The juice from the stalks and leaves of the nettle is used to dye woollen stuffs a brilliant and permanent green. It is suggested that it might replace Indian hemp for tinting salicylic-acid corn-paint.

Liverpool.

Sir Edward Evans is taking, on medical advice, complete rest at home for some weeks.

Never was the demand for American preparations so great; never was the available supply so small.

Mr. H. Humphreys Jones (Liverpool School of Pharmacy) has returned from his holiday in North Wales.

Sweet-en-it is a sugar-substitute which is being sold by Best's, Ltd. A 2*d.* packet is stated to be sufficient to sweeten 1 lb. of fruit.

The Liverpool Chemists' Association will probably be asked to take part officially in the decennial subscription towards the Benevolent Fund of the Pharmaceutical Society.

Owing to shortage of labour, the Great Crosby Urban District Council has asked the ratepayers to flush their drains and to use disinfectants. Here is an opportunity for the local pharmacists to offer a line.

A costly smash through the failure of a glass shelf in a pharmacy-window has conduced to the extended use of the wooden stands which are becoming popular for window-displays. In a china-shop the collapse of a glass shelf recently caused the destruction of over 100*l.* worth of goods.

The Liverpool Committee formed under the auspices of the Norwegian Chamber of Commerce, London, includes Lord Leverhulme, Sir John Brunner, Bart., Evans Sons Lescher & Webb, Ltd., the Salt Union, Ltd., and the United Alkali Co., Ltd. The object of the Committee is to promote trade with Norway.

Mr. James Gauld, chemist and druggist, Thackeray Street, Liverpool, who is in charge of Toxteth Union Dispensary, is among the second-prize winners who divide fifty guineas in the "Nation" essay competition. He has been known for many years as an original thinker with a capacity for literary expression; but his natural diffidence would have kept him out of the competition had not domestic persuasion and the offer of a friend to type the MS. led him to "risk the postage," as he put it.

Sheffield.

Wander, Ltd., are making a special push with "Ovaltine" both in the retail and in institutions: special terms are offered for goods supplied direct.

The sugar shortage is causing some curious requests from the public: a boy called at a local shop for two penn'orth of saccotine for sweetening tea.

The many chemist friends of Colonel Connell, the Commanding Officer of the 3rd Northern General Hospital, welcome the announcement of his promotion to full colonel.

Last week the works had the longest holiday since the commencement of the war; and wherever possible the chemist has taken advantage of the consequent slackness in business to obtain a few days' rest.

The Lord Mayor has been approached by the Government Department of Information with a view to the display in central shops of six large photogravures of military and naval leaders. The Town Clerk has asked the local Pharmaceutical and Chemical Society if it is willing to assist.

The Local Secretary is taking the necessary steps with the newly formed Food Control Committee to ensure a fair supply of sugar for pharmaceutical purposes. A feeling exists that the *personnel* of the Committee is not all that is to be desired: the only member with the slightest experience is the Lord Mayor, who is interested in the manufacture of sweets and chlorodyne lozenges.

Miscellaneous.

Companies (Particulars as to Directors) Act.—The "London Gazette," August 14, contains the form of the schedule in which particulars are to be entered as required by Section 2 of the new Act.

"Script" Sports Club.—Two matches were played in the Team Bowling Tournament on August 9. At Wood Green the Northern teams (Messrs. Bowie and Dow skips) beat the Westerners (Messrs. James and Widgery skips) by 42 against 36; and at Poplar the Eastern men (Mr. Wilson and Captain Keith skips) gained an easy victory over the North-Eastern teams by 74 points to 26.

Royal Botanic Society.—Sir Malcolm Morris, presiding on August 10 at the seventy-eighth annual meeting of the Royal Botanic Society of London, remarked that if the nation had better understood the science of botany the present food difficulties would not have arisen. Scarcely a German town was without its botanical school, and he hoped to see a great development in the study in the Society's Gardens at Regent's Park

British Dental Association.—At the annual meeting of this Association, held last month, it was stated that the membership is 2,600, of whom 600 are serving with the Forces, either as dental surgeons or as combatants. Mr. W. H. Dolamore was re-elected President of the Association, and in his address referred to the work of the Canadian Army Dental Corps, which encouraged him to suggest the advisability of instituting an Army Dental Corps for the British Army.

Venereal-diseases Treatment.—The Local Government Board has now approved of neo-kharsivan (Burroughs Wellcome & Co.) for the treatment of venereal diseases. Supplies of this drug can be obtained by local authorities and the authorities of hospitals approved by the Board under Article III. of the Public Health (Venereal Diseases) Regulations, 1916, at the following rates: Dose of 0.6 gram, 3*s.*; dose of 0.9 gram, 4*s.* 6*d.* It is added that as regards kharsivan, Burroughs Wellcome & Co. are now prepared to supply this drug in doses of 0.3 gram at the rate of 3*s.* per dose.

The Neglect of Science.—The Committee on the Neglect of Science, formed under the chairmanship of Sir Ray Lankester, K.C.B., has recently issued a report of its past year's activities. A deputation, consisting of four members of the Committee, waited on the Government last October. The views expressed, including a request for detailed information as to the proportion of school-time allotted to science, and a demand for the abolition of compulsory Greek at Oxford and Cambridge, were focussed in the suggestion that a reform could only be secured by the Government using its plenary powers (1) to assign capital importance to the natural sciences in the competitive examinations for the Home and Indian Civil Service, and (2) to require some knowledge of these sciences from candidates for Sandhurst. In November the Treasury appointed a Committee to consider and report upon the examination scheme for Class I. of the Home Civil Service, and to this body Sir Ray Lankester's Committee submitted last March a memorandum embodying further detailed suggestions. The Committee on the Neglect of Science expressly limits its scope to "the advocacy of adequate attention to the natural sciences in the public schools and at Oxford and Cambridge, and . . . the examinations for the public Services." Sir Ray Lankester, in an accompanying pamphlet, throws out the suggestion that "in school education as much as half the pupil's time should be given to gaining a knowledge of the main facts revealed by these sciences, and to personal observation of the experiments and methods of reasoning. . . ."

Fires.—On August 9 a fire at H. Rymer & Co.'s, Ajax Chemical Works, Hertford Road, Barking, resulted in the deaths of thirteen women and girls and injuries to others and to a boy. The fumes following the outbreak were so dense and overpowering that the inmates of the room in which the loss of life occurred were unable to reach the door in time. The premises are isolated, and the damage was confined to the works, which were practically demolished. The inquest was held on August 14. It was stated that the factory was engaged in making a secret preparation for the Admiralty, the process being in charge of the chemist, whom all the witnesses trusted. The evidence showed that the victims of the fire were suffocated by the smoke of the burning material. After hearing the evidence the jury returned a verdict that the deaths were accidental, and due to suffocation owing to a fire the origin of which was unknown. They recommended that the searching of the employés be more thorough; that the completed material be removed as soon as finished, and not stored in the workroom, all work of this nature to be carried out on the ground floor, if possible, and that the front door should open outwards.—On August 11 a fire broke out at the premises of the India Rubber, Gutta Percha, and Telegraph Works Co., Ltd., in Winchester Street, Silvertown, E. One-third of each of the two upper floors of the four-storeyed building sustained severe damage, and most of the roof was destroyed. —On August 12 one of the buildings at Price's Oil Works, Belvedere, Kent, used as a sperm-oil refinery, was practically burned down.

There are More Atoms in a thimbleful of water than there are thimblefuls of water in the Atlantic.—*Sir Oliver Lodge.*

Irish News.

Brevities.

Mr. J. J. Cahill, Ph.C., secured the contract for medicines at the last meeting of the co. Mayo Infirmary Committee.

Miss Ruth Lemon, daughter of Mr. Thomas Lemon, Ph.C., Markethill, has won a scholarship of 180*l.* in the Victoria High School, Londonderry.

The Cork Board of Guardians have granted a war bonus of 20*l.* per year to Mr. O'Sullivan, chemist to the Union. The bonus is to date from January 1, 1917.

The Corporation of Dublin has made an order fixing the hours at which chemists' and druggists' shops in Dublin must close at 10 P.M. on Saturdays and 9 P.M. on other weekdays.

When a young man fainted in the water at Youghal, co. Cork, Mr. M. O'Sullivan, M.P.S.I., Queenstown, went to his rescue, and after two hours' efforts succeeded in re-establishing respiration.

Mr. J. A. S. Anderson, registered druggist, who was formerly with Mr. J. Macaulay, registered druggist, Holywood Road, Belfast, has taken over the branch-shop of R. Hastings, Ltd., Newcastle, at Killyleagh, co. Down.

An open stroke competition, for which there were 200 entries, under the auspices of the Bangor Golf Club, was won by Mr. H. McRoberts, Belfast, of Berrington & McRoberts, wholesale druggists and manufacturing chemists.

The Ballymena Urban Council discussed a letter from the solicitor to Mr. John Alexander Woodside, Ph.C., Church Street, stating that 25*l.* would be claimed at the November County Court for wilful damage to the mahogany framework and pilaster of two of his shop-windows during the night of July 24-25. It was decided to oppose the claim as excessive, and to offer a reward of 10*l.* for the discovery of the culprits.

Scottish News.

Brevities.

Health salt, which is in greater demand than ever, is now very difficult to obtain. Chemists holding stocks are not disposed to part with them.

Anti-midge preparations are at present having quite a run. The midge and fly pests become particularly troublesome in Scotland during August.

The Board of Agriculture for Scotland, 29 St. Andrew Square, Edinburgh, supply free, on application to the Secretary, a leaflet giving directions for the preparation and use of bracken-ash. The process appears to be quite simple, and should yield from 30 to 40 per cent. of water-soluble potash. At the present market value of potash the ash is estimated to be worth between 18*l.* and 25*l.* per ton.

The editorial note on qualified chemists in the Army (*C. & D.*, August 11, p. 44) receives the wholehearted support of Scottish pharmacists, writes a correspondent. The feeling is general that the value of qualified chemists as professional and business men should now be pushed forward, with a view to their receiving at least the rank of sergeant-major or its equivalent in the R.A.M.C. and Royal Navy. Commissions could be given upon proved merit and capabilities.

Private Arrangement.

A meeting of the creditors of Mr. Samuel Lawrence, chemist, Oban, was held on August 13 at Glasgow, when a statement of affairs was submitted showing liabilities amounting to 1,836*l.* 19*s.* 5*d.*, and assets valued at 2,632*l.* 5*s.* 7*d.*, after allowing for the claims of preferential creditors, the estate disclosing an apparent surplus of 795*l.* 6*s.* 2*d.* It was reported that the debtor had been in business for over thirty-three years. He had kept books of an indifferent character, but since the war his trading had been considerably reduced. The falling-off in the trade was attributed to the absence of any summer traffic. Debtor was unable to make any offer to the meeting, and it was unanimously resolved that the trust-deed, which had already been executed, should be confirmed, and a Committee of inspection appointed, consisting of T. & H. Smith, Ltd.; Romanes & Munro, representing Baiss Bros. & Co.; and Mr. P. S. Booth, of Liverpool. Among the creditors are: T. & H. Smith, Ltd. (130*l.*); The British Drug Houses (56*l.*); Allen & Hanburys, Ltd. (17*l.*); Cooper, Sons & Nephew (41*l.*); Evans Sons Lescher & Webb, Ltd. (46*l.*); A. & H. Cox & Co., Ltd. (27*l.*); Butler & Crispe (76*l.*); Brand & Co. (15*l.*); H. Bronnley & Co., Ltd. (12*l.*);

"Sanitas" Co., Ltd. (10*l.*); Schweppes, Ltd. (63*l.*); John Timpson & Son (48*l.*); Baiss Bros. & Co., Ltd (102*l.*); S. Maw, Son & Sons, Ltd. (30*l.*).

Dundee.

Mr. Charles Young, chemist and druggist, Ann Street, Dundee, met with a bad accident while out driving recently, but is all right again.

Ex-Bailie McKinnon, chemist and druggist, Hawkshill, Dundee, who has for many years carried on trawling as a side-line, disposed of one of his boats recently at a much enhanced price on the original cost.

Edinburgh.

Retail prices for health saline are again raised, 9*d.* to 10½*d.* being the average range.

A local newspaper, advising readers to use saccharin in jam-making, says: "The tablets cost 2*s.* per 100." 2*s.* 6*d.* to 2*s.* 9*d.* is about the price asked here.

The University Court of the University of Edinburgh have instituted a Degree in Commerce. The degree will be known as Bachelor of Commerce (B.Com.).

Dr. A. T. Sloan, whose services were enlisted for the National Health Insurance scheme on its inception, is serving on a special Medical Board in connection with cases of shell-shock.

The following advertisement regarding a perfume appears in a local paper: "Take four long whiffs, one minute between each whiff, then you will enjoy an Oriental luxury of a mystical balm that would charm a duchess."

Lieutenant-Colonel H. Arthur Rose, D.S.O., who has been appointed divisional Food Commissioner for the eastern counties of Scotland, is a director of Craig & Rose, Ltd., chemical and colour manufacturers, Leith. He was formerly Chairman of the Edinburgh School Board, and a Director of the Edinburgh and Leith Chamber of Commerce.

Personalities.

Mr. Neville Chamberlain has resigned his post as Director of National Service.

Mr. W. Brinson was present at the funeral of the late Mr. J. J. Evans (see *C. & D.*, August 11, p. 39).

Mr. Stephen F. Clark, of the London staff of Boots (Southern), Ltd., was initiated a member of the Ancient Order of Druids, at the North Sheen (Surrey) Lodge, on August 1.

F. Howard Swales, son of Mr. Thomas Swales, druggists' sundriesman, 24 Butts Court and 89 Albion Street, Leeds, has matriculated at Leeds University and is joining a cadet unit in the Army.

Mr. Ernest Louis Nelson Armbrecht, pharmaceutical chemist, 73 Duke Street, London, W., has changed his name to Ernest Louis Nelson Nelson. He was born in England, and is a British subject.

The Directors of Evans Sons Lescher & Webb, Ltd., beg to express their sincere thanks to many friends for their kind letters of sympathy in the great loss they have sustained by the death of Mr. John J. Evans.

Mr. W. B. Conyngham, Ph.C., F.C.S., 9 Belgrave Road, Monkstown, co. Dublin, has been appointed sole representative in Ireland for Charles Midgley Ltd., manufacturing chemists, Mayes Street, Manchester.

Professor Dr. A. Tschirch, Berne, has been asked by the Medical Faculty of the Vienna University to become successor of Professor Vogel or of Professor Möller. The Berne University and the Swiss pharmacists are urging Professor Tschirch not to leave the country and the University where he has been working during the last twenty-six years.

Mr. Arthur S. Wood, acting head of the chemical department of the Birmingham Municipal Technical School, writing in regard to a paragraph in the *C. & D.*, July 14, p. 45, states that Mr. Edward Tranmer was first in the examinations referred to, but that Miss E. E. Kempster obtained first place in the class owing to the inclusion of marks for homework in the final award.

Mr. W. H. Woodward, M.A. (W. Woodward, Ltd.), in a letter to the "Times" dealing with the origin of the war, gives an experience of his at Innsbruck on July 13, 1914, when the Archduke Ferdinand Joseph suddenly arrived at the Hôtel de l'Europe, where Mr. Woodward was staying. From various remarks which were made at the time Mr. Woodward regards this visit as without doubt connected with the first step in the mobilisation of the Austrian army.

New Books.

Bayley, T. *A Pocket-book for Chemists, Chemical Manufacturers, Metallurgists, Dyers, Distillers, Brewers, Sugar Refiners, Photographers, Students, etc.* Eighth edition. By Robert Ensoll. 6¾ × 4 in. Pp. 425. 7*s.* 6*d.* net. (E. & F. N. Spon, Ltd., 57 Haymarket, London, S.W.) [This work, originally in the form of a pocket-book, has now been rearranged as a handbook. The editor, one of the chemists to British Dyes, Ltd., states that most of the old tables have been verified and the new ones recalculated. The sections of the work are (1) mathematical, (2) weights and measures, (3) physical, (4) general analysis, (5) gravimetric analysis, (6) volumetric analysis, (7) miscellaneous. The book contains an enormous amount of information, there being about 200 tables of matter. There is much in the book that is useful to pharmacists, apart from the purely chemical, analytical, and photographic information given. It is the best work of its kind at quite a moderate price.]

Cumming, A. C. *Practical Chemistry for Medical Students*, with Preface by Professor Jas. Walker. 8¾ × 5½ in. Pp. 165. Second edition. 3*s.* 6*d.* (J. Thin, Edinburgh.) [Dr. Cumming is lecturer on chemistry in the University of Edinburgh, and has been in charge of the medical practical chemistry class for several years. This book has grown out of the experience gained as to the requirements of medical students, who are required to become familiar with chemical substances in their curriculum. The work is made interesting to the student. Sulphur, for example, occupies about a page of the book, but if the student carries out the experiments described in that space, and notes the information which is given, and uses his powers of observation, he will be mentally equipped with a sound knowledge of the properties of sulphur. After a few chapters on elementary substances and salts the student is initiated into volumetric and qualitative analysis. Organic compounds are not neglected in the analytical tests. It is a useful book not only to medical students but to pharmaceutical aspirants.]

Martin, Geoffrey, Ph.D. *Industrial and Manufacturing Chemistry: Inorganic.* Vol. II. 10 × 6¼ in. Pp. 482. 25*s.* net. (Crosby Lockwood & Sons, 7 Stationers' Hall Court, Ludgate Hill, London, E.C.) [This is the second volume of Dr. Martin's work, which was noticed in the *C. & D.*, March 3, p. 48, and deals with the following subjects: Disinfectants and antiseptics; insecticides, fungicides, and sheep-dips; artificial manures; aluminium compounds; artificial zeolite; artificial-gem industry; aluminium-thermics; calcareous cements; sorrel cement; artificial stone; sodium silicate; lutes and miscellaneous cements; clays and allied materials; pottery; earthenware; porcelain; stoneware; bricks; tiles; furnace-linings; glass; enamels; asbestos; mica; thorium and cerium; titanium; zirconium; tantalum and niobium; tungsten; incandescent electric lamps; uranium; vanadium; radioactive substances; electric-furnace products industry; grinding and polishing materials; phosphorus; matches. In the preparation of this volume Dr. Martin has been assisted by ten collaborators. Between them they have produced a valuable work of reference which furnishes a good summary of the main features of the various industries dealt with, and enables those who desire to go deeper into a subject to get an idea of what special publications should be consulted to that end. This volume contains the index of the complete work.]

Mercier, Charles A., M.D., F.R.C.S., etc. *The Ideal Nurse.* 4⅞ × 3¾ in. Pp. 49. 1*s.* 3*d.* net. (The Mental Culture Enterprise, 329 High Holborn, W.C. 1.)

Steel, Matthew, Ph.D. *A Laboratory Manual of Organic Chemistry for Medical Students.* 9¼ × 5¾ in. Pp. 193. 6*s.* (Chapman & Hall, 11 Henrietta Street, London, W.C. 2.) [The medical students of the Long Island College Hospital, Brooklyn, New York, were the object of the original compilation of these notes by Dr. Steel, who is the professor of organic and biological chemistry at that institution. The right-hand pages of the book are left blank, with a view of inducing the student to record his observations on the facts dealt with. The preparation and testing of organic substances are discussed in an interesting manner, and although for the student working alone illustrations would have been useful, this is probably not necessary for those working in classes. The headings of some of the chapters indicate the scope of the work: Aliphatic hydrocarbons, alcohols, ethers, aldehydes and ketones, fatty acids, lipins, carbohydrates, carbocyclic compounds, vegetable alkaloids, proteins.]

Legal Reports.

Sale of Cocaine.—At Barrow on August 11, Mr. John Bryden, chemist and druggist, Michaelson Road, and Mr. Thomas Steel, chemist and druggist, Duke Street, were summoned for supplying cocaine contrary to the regulations. The cases were adjourned for a week.

Early Closing.—At Lancaster on August 11, James Harris Matthews and Percy Shaw, patent-medicine vendors, 26 Corporation Street, Bolton, were summoned, under the Closing Order Regulation of the Defence of the Realm Act, for carrying on a retail trade in a place other than a shop after 8 P.M. on July 20 at Heysham, Morecambe. The prosecution stated that the men rented a wooden structure and conducted their business after closing-hours outside, lecturing about their preparations and then selling them at 1*s.* per bottle. They had been warned, but Matthews said, "We know all about the Act; we are exempt under the Pharmacy Act." On the night in question, at 8.20, they sold about forty bottles of "Phosferine" and "Indian Brandee." The Bench fined each defendant 40*s.*, and costs. —At Market Rasen on August 7, Mr. Finlay McGillivray, chemist and druggist, of Market Rasen, was fined 5*s.* for failing to shade a light in his shop-window on the night of July 12.

Lime-water.—At the Clerkenwell Police Court on August 15, before Mr. Chester Jones, Mr. H. C. Payne, chemist and druggist, 78 Essex Road, Islington, was summoned, under the Sale of Food and Drugs Act, for selling, on June 27, lime-water 20.9 per cent. deficient in lime. Mr. C. H. Kirby, who defended for the Chemists' Defence Association, pleaded guilty on defendant's behalf. Mr. Bramall, for the Islington Borough Council, informed the Court that lime-water should contain, according to the British Pharmacopœia, 0.1168 per cent. of lime, whereas defendant's sample contained 0.0924 per cent. Mr. Kirby stated that the Pharmacopœia gave certain directions for the preparation of lime-water, one of which is that the calcium hydroxide ordered is to be shaken with a certain quantity of distilled water for two or three minutes, then set aside until clear, and the clear solution syphoned off. Pharmacists are aware that it is not always enough to shake the lime and water once as the B.P. directs, and, as a matter of fact, they generally shake up the lime and water several times during twenty-four hours or more. Mr. Payne had always been in the habit of carrying out the latter practice, but he has recently lost two of his assistants by enlistment and he is now more than busy. He thinks he must have omitted the subsequent shakings owing to over-work, and that is the only reason he can suggest why the solution was not up to full strength as usual. No advantage would be gained by leaving out any of the lime or making the solution weaker than is ordered, as lime is not an expensive article. The Magistrate ordered defendant to pay 40*s.* costs, but said there would be no conviction.

The Sale of Diachylon.—At Swindon on August 13, John Thomas Painter, described as a druggist, but whose name is not on the Register of Chemists and Druggists, 56 Cricklade Road, Swindon, was summoned on four charges of selling poison to two women unknown to him, the sale not being in conformity with the requirements of the Pharmacy Acts. Mr. W. H. Taylor, for the prosecution, said that defendant succeeded his father in the business, and did not appear to be either a registered chemist or a registered druggist, and therefore had absolutely no right to sell scheduled poisons. Over his premises was inscribed, "John Painter, Sons & Co., wholesalers and retailers," and in the windows were displayed goods of the description usually sold by chemists and druggists. After his father's death defendant continued to carry on the business on his own account, and apparently without the presence or assistance of any qualified person. It was decided to ascertain what sort of business defendant was carrying on, and on July 5 Police-Sergeant Harris handed to his wife and also to a Mrs. Cleverly two orders for "One pennyworth of aloes, one pennyworth of diachylon, and one pennyworth of hiera picra, for pills." Both Mrs. Harris and Mrs. Cleverly made their purchases, which were screwed up in pieces of paper, and a charge of 3*d.* each was made. Superintendent Moore and Police-Sergeant Harris subsequently went into the shop, and when they asked defendant if he kept a poison-register he replied, "No, it is not worth it." They inquired if defendant had any qualifications, and defendant's reply was, "I have not passed any examination, only I have had a great deal of experience in drugs." The purchasers of the articles gave evidence, and Dr. Bernard Dyer, public analyst, said diachylon is one of the most dangerous things that can be taken. The only legitimate purpose for which it could be used is in the preparation of external plasters, but it is a matter of notoriety that it is used by women with the object of bringing about certain results. Whether or not it succeeds in its immediate object it might ruin a woman for the remainder of her life, and is not infrequently attended with fatal results. Dr. W. F. J. Whitley, medical officer of health for Swindon, said there is no legitimate internal use for diachylon, and it is for that reason that it has been scheduled. He believed this is the only shop in North Wilts at which the drug can be procured, for the simple reason that all chemists of repute refuse to sell it. The combination of the three drugs is a most diabolical conception, and as medical officer he was able to say that cases of abortion had been frequent in the district. The use of the drugs in question is calculated to cause profound anæmia, possibly paralysis and insanity. Mr. Pridham, for defendant, who pleaded guilty, said defendant succeeded his father, who was a qualified druggist, and had unwittingly erred in selling from what was left of his very small stock of poisons. The Chairman said the Bench regarded the case as a very serious one. Defendant would have to pay a fine of 3*l.* 2*s.* 6*d.* on each of the four summonses, and would also have to contribute a similar sum towards the costs, making 25*l.* in all. The alternative would be two months' imprisonment. Mr. Pridham asked for time for payment, and the Bench allowed a month.

New Companies
and Company News.

P.C. means Private Company and R.O. Registered Office.

J. Busby, Ltd. (P.C.).—Capital 1,500*l.* Objects: To take over the business of a chemist and druggist carried on at High Street, Harpenden, by J. Busby. The first directors are J. Busby, chemist and druggist; W. J. Busby, collector of taxes; and A. Smith, chemist and druggist—all of Harpenden.

B. & L. Remedy Co., Ltd. (P.C.).—Capital 100*l.* Objects: To carry on business as manufacturing, pharmaceutical, and analytical chemists, druggists, etc. The first directors are W. B. Lewis, 71 Old Market Street, Bristol, dispenser, and C. Claridge, 13 Dowry Square, Clifton, Bristol, chemist.

Jolly Boy Co., Ltd. (P.C.).—Capital 5,000*l.* Objects: To take over the businesses of soap and dry-soap manufacturers and manufacturers of household specialities carried on by W. Harwood and J. Waddington respectively at Blackburn. The first directors are C. S. Critchley, Ph.C., R. Dickinson, J. Stanworth, and J. Waddington—all of Blackburn.

Meggitts (1917), Ltd. (P.C.).—Capital 100,000*l.* Objects: To take over (by licence of the Board of Trade) the business of chemical-manure manufacturers and merchants, bone crushers and merchants, glue and grease manufacturers and merchants, etc., carried on by Samuel Meggitt & Sons, Ltd., at Sutton-in-Ashfield and elsewhere. The subscribers are E. H. Quibell, Newark, chemical-manufacturer, and R. Duncalfe, Forge Mills, Bestwood Colliery, Nottingham, chemical-manufacturer.

The Amsterdam Quinine-works have declared a dividend of 120fl. per share for 1916.

Bovril, Ltd., have declared an interim dividend on the ordinary shares at the rate of 5 per cent. per annum for the half-year ended June 30.

Lever Bros., Ltd., of Port Sunlight, have acquired the controlling interest in Joseph Watson & Sons, Whitehall Soapworks, Leeds. Mr. Joseph Watson, chairman of the latter company, states in a letter to shareholders that Lever Bros. have acquired all his ordinary shares in the company, in addition to the large holding of ordinary shares which they had already.

Gazette.

Partnerships Dissolved.

Hope, J. H., and Hope, R. J. H., 26 Billiter Buildings, London, E.C., oil and chemical manufacturers, under the styles of Hope, Hartope & Co., Travers, Hawksley & Co., the Buffer Oil Co., and the Lactina and Restorine Manufacturing Co.

Robertson, J., and Gough, H., 94 Market Street, Manchester, dye and chemical merchants, under the style of James Robertson & Co.

Westminster Wisdom.

By the "C. & D." Parliamentary Representative.

Workmen's Compensation.

The Workmen's Compensation (War Addition) Bill which is before the House of Commons provides for the payment of a maximum weekly amount of 25*s*., instead of 20*s*., as compensation allowed by the Workmen's Compensation Act, 1906.

The Supply of Saccharin.

Mr. Clynes stated in the House of Commons on August 15 that negotiations are still proceeding with a view to increasing the production of saccharin in this country, and it is hoped that supplies will presently be available for sweetening purposes.

Manufacture of Artificial Limbs.

Major Kerr-Smiley, in the House of Commons on August 15, asked the Under-Secretary of State for War regarding the manufacture of artificial limbs at the Belgian Hospital at La Panne.

Mr. Barnes, who replied, said the Advisory Committee is acquainted with the work done at La Panne, and action is being taken to obtain details of Dr. De Page's system for making artificial limbs, which has recently been adopted there.

Utilising Horse Chestnuts.

Mr. Millar on August 13 asked the Minister of Munitions whether it is proposed to utilise horse chestnuts for the purpose of manufacturing alcohol for munitions purposes; and whether arrangements will be made for the gathering of chestnuts by school-children and other voluntary workers during the autumn for that purpose?

Sir Worthington Evans replied that it is proposed to use horse chestnuts for certain purposes, and arrangements are being made for collecting them.

White-bread Certificates.

In the House of Commons on August 9, Mr. Clynes (Parliamentary Secretary to the Ministry of Food) informed Mr. Fell that down to July 31 1,238 applications for permission to have supplies of white flour were received, and 764 permits were granted. The medical certificate, which in all cases is required and should be specific, invariably states the district in which the applicant resides; it is usually accompanied by a covering letter, from which an indication of the financial circumstances of the applicant can be inferred.

Education Bill.

The Education Bill, which was read a first time in the House of Commons on August 10, consists of forty-seven clauses and two schedules. Clauses 3 and 4 deal with the establishment of continuation schools, and Clauses 10 to 12 consist of provisions relating to such schools Clauses 13 and 14 amend the Employment of Children Act and other Acts in regard to the age at which children can be employed in labour. Clause 18 deals with the medical inspection of schools and educational institutions, and Clause 21 confers power to aid teachers and students to carry on research in or in connection with an educational institution.

Anti-typhoid Inoculation.

Mr. W. Thorne on August 14 asked the Under-Secretary of State for War whether he is aware that ten deaths have been officially admitted in the South African Parliament as due to the effects of anti-typhoid inoculation among the troops; and whether this proof of the danger of this system of preventive medicine will induce him to discourage its use among the soldiers in this country and in France?

Mr. Macpherson replied that the unfortunate incident referred to is reported as being due to the use of untested vaccine, which was found to be contaminated. This vaccine was made in South Africa by the South African Institute of Medical Research, and not by the Army Medical College. The War Office has offered to supply all future requirements of anti-typhoid vaccine for use in South Africa.

The Drug Question.

In the House of Commons on August 14, Sir Maurice Levy asked the Chairman of the National Health Insurance Commissioners whether his attention has been drawn to the fact that the doctors in Leicestershire who have undertaken to supply drugs and appliances to insured persons only receive an average capitation-fee in respect thereof of, approximately, 1*s*. 10*d*. per annum, according to the number shown on their lists, while the chemists in the same area receive no less than, approximately, 2*s*. 2*d*.; whether he will explain why there is any difference in the amount per caput, having regard to the fact that Article 39 (6) of the Medical Benefit Regulations, 1913, provides for the payment of a sum equal to the average amount payable to persons supplying drugs and appliances; and why, if it is said to be attributable to the distribution of the so-called unallotted moneys, the doctors do not participate.

Sir Edwin Cornwall replied that his hon. friend would appear to have been misinformed. The payment made to the doctors concerned has been made at the same average rate as in the case of the chemists, in accordance with the regulations to which he refers. The suggestion as to there being some difference between the two rates probably arose from a misunderstanding as to certain figures in the calculations. This point has now been cleared up to the satisfaction of the Panel Committee, which represents all the panel doctors in the area referred to.

The Committee on Dental Practice.

Our Parliamentary correspondent is informed that the Departmental Committee which was appointed a few weeks ago by the Lord President of the Council to consider questions affecting dental practice, and particularly the position of the unregistered dentist and the use of cocaine in dental operations, has already held a preliminary meeting at which the future procedure to be adopted was discussed by Mr. F. D. Acland, M.P., and his colleagues. The Committee has adjourned until the early autumn, when in all probability the evidence of the unregistered dental practitioners will be first taken. As a result of representations which have been made to the Chairman of the Committee, both in and out of Parliament, it is likely that the *personnel* will be increased by the addition of a Member of Parliament who has been specially interesting himself in the case of the unregistered dentist, and also by one of the unregistered dentists themselves. This, it is understood, would be regarded as satisfactory to those who have been addressing questions on the subject to the Prime Minister. When the question was recently before the House Mr. P. W. Raffan gave notice that he would raise the whole question at the earliest opportunity, but in view of the steps which are now in progress, it is improbable that he will do anything beyond putting a question, before Parliament adjourns for the recess, to ascertain exactly what has been done.

Manipulative Surgery.

An interesting discussion took place in the House of Commons regarding the attitude of the medical profession and the War Office in preventing the employment of experts in manipulative surgery for the purpose of relieving soldiers whom it is believed these experts would benefit. It was initiated by Mr. Peto on the Army Medical vote. In his speech Mr. Peto gave several cases in which Mr. Barker has afforded extraordinary relief where medical men have failed, and he claimed that the jealousy of the medical profession should not be allowed to act in preventing surgical relief being given to soldiers by unregistered persons. He stated that nearly all the great discoveries of medicine have come from outside the profession, and they have nearly always been regarded in exactly the same light as manipulative surgery is regarded by the orthodox in the profession to-day. He had a list of fifteen great discoveries in surgery and medicine, and quoted five, beginning with cinchona, which was introduced into Europe by Jesuit priests who had learned its value from the Indian tribes of South America. Ether was first employed as an anæsthetic by an unqualified man. Pasteur was refused a hearing by leading physicians because he had no medical degree. When Harvey announced his discovery of the circulation of the blood, he was denounced by the profession of his day as "circulator" or quack. Lister was scoffed at when he advocated the employment of anæsthetics, and the laryngoscope was sneered at as a physiological toy. There is nothing in the statute to prevent the employment of Mr. Barker for manipulative surgery by the Army. Sir William Cheyne, in a maiden speech, explained to the House the medical view, which was that if one unregistered person were allowed to administer to soldiers, the Army Medical Service would be flooded with a set of irregular practitioners who are absolutely incompetent. He thought, however, that some arrangement might be made to put Mr. Barker in a position where his services could be obtained. Mr. Macpherson, the Under-Secretary of State for War, in his reply, said that an Army medical man may be obeying the Army Council in sending a soldier to an unprofessional man, but he is disobeying the law of the General Medical Council, and would have his name erased from the Medical Register. This would be an intolerable and impossible position for the R.A.M.C. practitioner. The Army Council would not object to a soldier being attended by an unqualified practitioner if the soldier took the responsibility.

Trade Notes.

Midgley's Soaps.—A prettily designed page in the advertisement section of this issue is devoted to the perfumed soaps made by Charles Midgley, Ltd., Manchester.

Preventing War Difficulties.—The Veno Drug Co., Ltd., Veno Buildings, Manchester, suggest that in view of uncertainty in the future chemists should lay in a stock of Veno's Lightning Cough Cure, which can at present be obtained in any quantity. The same remark applies to Dr. Cassell's tablets.

Sugarless Saline.—Bishop's Natural Fruit Saline, being free from sugar or saccharin, is specially suitable for sale at the present time. Alfred Bishop, Ltd., manufacturing chemists, 48 Spelman Street, London, E. 1, the proprietors of this saline, give particulars regarding it in their advertisement in this issue.

White Ensign Tooth-powder.—F. Newbery & Sons, Ltd., 27 and 28 Charterhouse Square, London, E.C., send for our inspection sample tins of the White Ensign tooth-powder which the company are advertising in this issue. It is a white powder, with a pleasant perfume, and is particularly good value for money.

Spa-Sal Phosphate Salts is an effervescent saline aperient and diuretic neatly put up in an upright tin and containing no sugar. A sample that we examined developed the brisk effervescence typical of the best grade of granulated products. Fuller particulars will be found in the advertisement in this issue of Thomas Guest & Co., Ltd., Ancoats, Manchester.

Beau Nash Pomade is a British-made pomade for imparting lustre to the hair, which is placed on the market by Mr. B. M. Hartley, 2 Queen Anne's Gardens, Bedford Park, London, W. 4. It is put up in tasteful earthenware jars, and sells at 2*s.* 6*d.* The pomade is pleasantly perfumed and adapted for high-class trade. The wholesale agents are R. Hovenden & Sons, Ltd.

Educational Institutions.—The following are advertising in this issue: Birmingham University, Manchester University School of Pharmacy, Manchester Municipal School of Technology, South-Western Polytechnic Institute, Royal Veterinary College, City of London College, School of Pharmacy of the Pharmaceutical Society, Westminster College of Pharmacy, London College of Pharmacy, South of England College of Pharmacy, Elt's College, Northern College of Pharmacy, Bath and West of England College of Pharmacy, Birmingham and Midland College of Chemistry, Liverpool School of Pharmacy, and Mrs. Grieve's School of Medicinal Plant Growing.

Microscope-slides.—We have recently had an opportunity of examining several series of microscopical slides produced by Flatters, Milborne & McKechnie, Ltd., Church Road, Longsight, Manchester, who have specialised in this work for many years. The company produce a large variety of slides for educational purposes, and these are listed in different catalogues. One of the sets we passed through the microscope consisted of seventy-two slides of the "Accurate" type, the subjects being such as are required by students entering for the Board of Education examinations. These slides are selected with a view of showing definite botanical characteristics, such as starch, alcurone grains, chloroplasts, leucoplasts, and cluster crystals *in situ*, also distinctive features, such as laticiferous vessels, sieve-tubes, stomata, stellate cells, oil-glands, hairs, glands, and seeds. Each slide is accurately named and the source of the specimen stated. In looking through the set referred to we were unable to detect a faulty slide. The staining is beautifully done and the specimens are free from extraneous matter, so that the features are clearly brought out. There are special pharmaceutical sets for Minor and Major students, the prices of the slides varying from 6*d.* to 1*s.* Sets of slides are sold in cases at inclusive prices, but students can select any slides they desire from the published lists. "The Micrologist" is published by Flatters, Milborne & McKechnie, Ltd., although temporarily suspended now. The issue which we have before us contains an article on the development and structure of the sunflower, by Mr. Abraham Flatters, F.R.M.S., and we have had the advantage of reading it in conjunction with a set of the slides prepared to illustrate the article. The method of producing the slides is also given. Among other publications is a book of photomicrographs of botanical studies (2*s.* net), in which the features are identified. It forms an instructive guide to the microscope-slides of the same studies.

Birth.

Blomfield.—On July 28, the wife of F. H. Blomfield, pharmacist, Bexley Heath, of a son.

Marriages.

Dodd—Lawford.—At St. Saviour's, Pimlico, on August 7, by the Rev. Douglas Pelly, C.F., assisted by the Rev. Arthur Durrant (uncles of the bride), Lieutenant Edmund R. Dodd, R.N., younger son of Mr. and Mrs. W. Ralph Dodd, to Winifred Margaret, only daughter of Mr. and Mrs. Godfrey Lawford.

Lines—Clarke.—At Holy Trinity Church, Gravesend, on August 8, by the Rev. R. P. Crabbe, Vicar of St. Mary's, Peckham, assisted by the Rev. G. Griffiths, Vicar of Holy Trinity, Gravesend, Percy Edward Lines, second son of Mr. and Mrs. E. Lines, Whitehill Road, to Mabel Catherine Clarke, youngest daughter of Mr. R. T. Clarke, pharmacist, and Mrs. Clarke, 131 Milton Road, Gravesend.

Livesey—Swann.—At St. Andrew's Church, Ashton-on-Ribble, on August 13, George Forrest Livesey, chemist and druggist (Forrest Livesey & Co.), Preston, to Margaret, daughter of Mr. C. Swann, Ashton-on-Ribble.

Deaths.

Crockart.—At 22 Latch Road, Brechin, on August 15, after a long illness, the wife of William Crockart, chemist and druggist and optician.

Davies.—At Garth, Llangollen, on August 8, Mr. R. M. Davies, chemist, aged seventy. Mr. Davies, who is survived by a widow and four children, was for many years in business at Llangollen, and was well known in various public offices. The funeral took place on August 11, several public bodies being represented.

Eulenburg.—The death is announced, on July 3, of Professor Dr. Albert Eulenburg, aged seventy-six. Dr. Eulenburg was a well-known Berlin nerve specialist, and his "Realenzyclopädie der gesamtes Heilkunde" ranks as a standard work.

Napier.—At 13 Birch Grove, Rusholme, Manchester, on August 11, Nance, wife of Alex. Napier (representing Warrick Bros., Ltd.).

Pennington.—Recently, Mr. Thomas Moscrop Pennington, Buckley Wells, third son of the late Mr. Thomas Pennington, chemist and druggist, Bolton Street, Bury, aged forty-eight. Mr. Pennington had acted as dispenser at the Wellington Barracks, Bury, and is survived by a widow and one daughter.

Pool.—At 5 Cambridge Green, New Eltham, London, S.E., on August 4, after a long illness, Mr. George Pool, chemist and druggist, formerly drug department manager with Spiers & Pond, Ltd.

Sanders.—At "Cleveland," Marshall's Road, Sutton, Surrey, on August 1, Mr. Francis Theodore Sanders, chemist and druggist, aged fifty-nine.

Died on Service.

Buchanan.—Pioneer John Loudon Buchanan, Royal Engineers, has been killed in action. He was a chemist and druggist formerly in partnership with Mr. Martin Meldrum, Ph.C., High Street, Irvine, and is survived by a widow and two children.

Mark.—On August 7, of wounds received in action, Second-Lieutenant James Wilson Mark, Royal Irish Regiment, elder son of Mr. James Mark, "The Chestnuts," Monaghan Street, Newry. Second-Lieutenant Mark served his apprenticeship with Mr. A. McClure, Ph.C., Hill Street, Newry, and, after qualifying as a pharmaceutical chemist of Ireland, held appointments in Cork and Dublin.

Information Department.

INFORMATION WANTED.

Postal or telephone information with respect to makers or first-hand suppliers of the undermentioned articles will be appreciated.

104/47. Batchelor's pills.
98/39. "Embrocine."
102/69. Newton's nerve-drops.
103/35. Taylor's "Pyrozine."
105/41. "Psycheia" toilet-preparations.

Observations and Reflections.

By Xrayser II.

The Sugar-distributing Scheme

outlined by you last week is an instance of a lesson learnt from our enemies, for it is in its essential features the mode finally adopted in Germany for the regulation of the supply of many commodities, whether food or other things. Originally the Germans adopted a simple card system : the cards specified the amount of the article for which they were issued to which the holder was entitled, but not the dealer from whom it was to be obtained. The result was that nobody could be sure of getting from any particular dealer the amount due to him, as some shops were run upon for one article and some for another, and there was no certainty anywhere as to the demand likely to be made. The order-voucher system, however, which is virtually the same as our new sugar-supply scheme, works well. Every person orders from a local dealer the rations he requires; the dealer forwards the counterfoils of all the orders he receives to the Controller for the district, by whom the wholesaler is authorised to send him supplies sufficient to afford every household the quantity to which it is judged to be entitled. By this system, whether the full amount of any commodity asked for can be supplied to every person or not, uniformity of supply at least is ensured, and there is no waste.

The Reorganisation of the R.A.M.C.

can hardly fail, whatever form it takes, to be beneficial to pharmacists serving in the Army, if only our Society has the courage to take advantage of the opportunity it offers. The fact that under the present system it can be asserted that "the fullest and best use" has not been made of the doctors serving on the various Fronts is one of the grounds for demanding that this Service should be reorganised, and it applies with tenfold force to the case of the pharmacists. Whatever change may be made is virtually certain to be in the direction of giving increased power to what may fairly be called the civilian element in the Service itself, and so of bringing that Service more under the influence of instructed public opinion. The neglect of scientific pharmacy in the Army is an old story, dating at least from the Crimean War, when the Pharmaceutical Society tried in vain to secure proper recognition for it; and if changes are made we ought to see that this is included among them.

The First of the P.P.C. Pamphlets

deals with the question that is just now of the first importance—that of Tariff Revision for 1918. The different Tariffs under which we have already suffered are first discussed, and their faults pointed out, and we are warned against a repetition of the mistakes of the past. The sound principle of the inclusion of the establishment-charge in the dispensing-fee is laid down as a condition of any satisfactory scheme, and two schemes are then suggested, of which the second is rightly said to be preferable, because it is at once the simpler and the more likely to yield, in existing circumstances, an adequate remuneration. This consists of a flat rate of 4½*d.* for all medicaments, solid or liquid, that require to be extemporaneously compounded; for stock mixtures, pills, tablets, etc., not specified in Tariff, a fee of 3*d.*; for drugs ordered alone, and preparations specified in Tariff, 2½*d.*; for proprietaries, 2*d.*; for appliances, 1*d.* Reasons are given for this differentiation of fees, but they do not all seem to me very convincing. One sees the reason for the "intermediate" fee of 3*d.* on stock mixtures, etc., not specified in Tariff, but hardly for the variations among drugs and Tariff preparations ordered alone, proprietaries, and appliances. I should have thought, too, that there is at least as much reason for differentiation between drugs ordered alone and Tariff preparations as there is for distinguishing either of these from proprietaries. Whether the Tariff suggested, taken as it stands, would prove sufficiently remunerative depends a good deal on the proportion in which the various classes of medicaments enter into Insurance work, a point on which this pamphlet throws no light. But it may, I fancy, be taken for granted that the proportion of stock mixtures is more likely to increase than to diminish, and that, with doctors bent on "economy," the process would be hastened if 2*d.* were saved whenever they were ordered.

A Pharmacist Overburdened with Stock

sends me a bitter cry for co-operative production by manufacturers who are tumbling over one another in the effort to supply substitutes for various commodities (German and other) now, owing to the war, unprocurable. He instances a certain soap, but his suggestion would be applicable to numberless other things as well. His complaint is that whereas he had formerly only one well-known and well-advertised article of a kind to stock, there are now, for each one, something like half-a-dozen claimants for the vacant place, none of which is sufficiently advertised to create a universal demand, though every one of them is more or less before the public, may be asked for at any time, and has consequently to be kept in stock if he wishes to be regarded as up to date. He suggests that manufacturers should agree together to produce one really efficient substitute for the missing speciality, should share in the cost of production and advertisement, and supply it on equal terms under a common name. This would prevent enormous waste both in production and distribution, and there is no reason why it should be confined to substitutes. I am afraid, however, that it is too sensible a suggestion to be adopted.

The Sulphurous Acid

of our Pharmacopœia is, of course, sulphurous acid dissolved in water, and this is not the "spirit of sulphur" of our old Dispensatories, though popularly it goes by the same name. The old preparation was not diluted. It is styled in the Edinburgh Pharmacopœia of 1735 "Oleum vel Spiritus Sulphuris per Campanum," and was procured by burning sulphur and catching the fumes in a glass bell in which they were condensed, and from which the spirit fell, *in modum aquæ*, into a vessel placed underneath. The dose was from three to ten drops. In Alleyne's "Dispensatory" there is also given a formula for what he calls "Gas Sulphuris," which answers to our present sulphurous acid. He directs that the sulphur be burnt "under a bell put over a vessel full of Water, till the Water is sufficiently impregnated with it." Of the other preparation and oil of vitriol Quincy says that some have pleasantly pronounced "one to be a Vitriolic Spirit of Sulphur, and the other a Sulphureous Spirit of Vitriol."

Theophrastus

devotes only one of the nine surviving chapters of his Inquiry into Plants to their medicinal uses, but small as is the contribution he thus makes to the subject, it derives importance from the fact that he was one of the first writers on botany of whom we have any definite knowledge to specialise in this direction. It is peculiarly interesting to note in so early a writer the superstitions even then attaching to the gathering of certain herbs, such as that the mandrake must be first circled three times with a sword, the operator facing towards the west; that one must anoint oneself with oil before cutting thapsia (*Verbascum Thapsus*?); that the wild rose must be gathered facing to windward; that some plants (the peony is one of the more important of these) must be gathered at night, others by day, and some—as, for instance, the honeysuckle—before the sun strikes on them. Most of these notions he regards as irrelevant or exaggerated, but many of them still persist in popular belief. He thinks it not unreasonable to pray while cutting plants, but he says the additions often made to this are absurd—the offering of cakes and fruits, for instance, and the looking for the appearance of an eagle, presaging death within the year, while gathering hellebore, which plant, like mandrake, requires to be first encircled with a sword.

Peroxide of Hydrogen

(H_2O_2)

KINGZETT'S PRESERVED QUALITY.

INVALUABLE

1. As a wash for wounds, ulcers and sores.
2. For use in midwifery cases.
3. As a gargle in cases of sore throats.
4. As a mouth-wash.
5. For application in cases of bites from venomous insects, &c. &c.

SOLD IN 10 VOLUMES STRENGTH, AND PUT UP IN

16-oz. bottles, retailing at **1/6** each.
8 " " **1/-** "
4 " " **9d.** "
Also in Bulk.

Trade Prices and Leaflet on application.

The "SANITAS" Co., Ltd., Limehouse, London, E. 14.

BRITISH ABSOLUTE ALCOHOL

Jas. Burrough Ltd. *D.1. Cale Distillery, Hutton Rd., LAMBETH, S.E.*

An announcement of particular interest to you appears in this issue on page 30.

PATENTS AND TRADE MARKS.

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Editorial Articles.

Educational Reconstruction.

Educational Problems loom large at the present time, and the schemes which are being proposed for the stimulation and improvement of elementary and secondary, technical and scientific education are so great that they are well entitled to be regarded as a reconstruction of the whole edifice of education in this country. In The Chemist and Druggist, April 28 (p. 43), we drew attention to the speech in the House of Commons by Mr. Herbert Fisher, the President of the Board of Education, in which he referred to the necessity of improving the facilities for elementary and secondary education. On August 10 Mr. Fisher introduced his Education Bill into the House of Commons, "to make further provision with respect to education in England and Wales and for purposes connected therewith." The chief features of the Bill are (1) compulsory school attendance for all between the ages of five and fourteen years, all exemptions being abolished, and (2) compulsory attendance at continuation schools up to the age of eighteen, for a period of 320 hours in the year, or the equivalent of eight hours a week for forty weeks. An exception to this is that attendance at schools will not be required in the case of a young person who has received suitable full-time instruction up to the age of sixteen, or has passed the Matriculation examination of a University or an equivalent examination. The important provision is made that the part-time instruction is to be given by day, and must not be on Sunday or any holiday or half-holiday which a young person is accustomed to enjoy. What it amounts to is that young persons will be liberated from "industrial toil" for the equivalent of three half-days a week during forty weeks—two half-days to be spent in school, while one will be a half-holiday. It is obvious that if these provisions become law pharmaceutical education will be directly affected, as we presume that the continuation classes will be of such a nature that they will bear directly upon the occupation in which the young person is engaged. It is apparent that if, as a result of instruction in continuation schools, a group of subjects is studied, and certificates of competency obtained, these will be required to be accepted as part of the professional examinations of bodies such as the Pharmaceutical Society. Hitherto science certificates obtained at evening classes have not been regarded as the equivalent of any part of the Qualifying examination for pharmacy, but if we read the signs aright this disregard for the student's attainments will no longer be tolerated. The Government will probably compel examining bodies to credit candidates for professional examinations with work already done. It follows that a grave responsibility rests upon the Pharmaceutical Council to see that the regulations made by the Board of Education are so framed as to allow of subjects being taken in continuation schools which shall the better fit pharmaceutical apprentices for their life's work. We believe some desultory efforts have been made by the Council, and that an offer was made to accept Board of Education certificates in science subjects in lieu of that portion of the Minor which the certificates covered. Since 1916, however, the Board of Education has ceased to hold lower-grade examinations in scientific subjects, and after 1917 no higher examinations will be held in these subjects with the sole exception of inorganic chemistry. This means that only the larger and better-equipped technical schools, now classed as "local colleges," whose certificates in respect of senior or advanced part-time or whole-time grouped courses are endorsed by

the Board of Education, can offer a certificate which could be accepted by the Pharmaceutical Society in lieu of the respective subjects of the Minor. This, obviously, could not be regarded as satisfactory, but no doubt the position could be improved by getting the Board of Education to insist on candidates showing a sufficient elementary knowledge of subsidiary subjects, such as mathematics, mechanics, and physics, and also elementary organic chemistry, before admitting them to the higher examination in inorganic chemistry. Any person holding such a certificate might well present it to medical and dental bodies, and to the Institute of Chemistry, as well as to the Pharmaceutical Society, and these bodies could be required to accept it. It should be added that Mr. Fisher states that a liberal allowance of time will be granted to local educational authorities in which to think out a system appropriate to the special needs of the locality, and that it is contemplated that there may be a considerable variety of type in these schools.

The scheme, of course, will be subject to regulations laid down by the Board of Education, which will hardly reverse the practice which has obtained of late years. The tendency since 1902 has been to do away with single-subject examinations, and to institute grouped courses of study and course examinations, and there is little doubt that the Board of Education would listen to a suggestion from the Pharmaceutical Society along this line, since it goes exactly in the direction of what the Board approves. It would be open to all technical schools to prepare for such a certificate, and it would be an enormous gain if our young men could be trained on these lines, while it will be an irreparable loss if they are not. Pharmacy must fall into line with modern educational developments or fall out altogether. It is essential, however, that no time should be lost in bringing before the Board of Education the exceptional position of our students and thus ensuring that facilities be provided not only for their participating in the advantages to be offered generally, but also that their special claims be considered. The institution of a fairly complete grouped course certificate, such as would be acceptable to the pharmaceutical and medical bodies, would perhaps solve the difficulties surrounding proposals for assistants' examinations, since holders of these special certificates might well be entitled to preferential positions, even in the pharmacy. It may not be thought desirable to reduce our standard in dispensing, as might have to be done were an assistants' examination of the Apothecaries' grade introduced, for that might mean an influx into the business of young men who would go no further, and would be a menace so soon as their number increased. The matter requires very careful handling, and something more than desultory conversations is needed. A Committee, with the Board of Examiners as a nucleus, should make a special study of the matter and advise the Council as to the best course to take. Four months ago we warned the Council to ascertain how far existing schools can be utilised for providing the instruction needed for the pharmaceutical qualification, and we hope that Mr. Fisher's Education Bill has not caught the Council napping.

July Overseas Trade.

The Board of Trade Returns for July include for the first time the imports and exports on behalf of the British and Allied Governments, but they do not, of course, include exports for the use of the Forces in any theatre of war. This change has been made on account of the fact that the Government purchases abroad have considerably increased in volume, both for account of public as well as private ownership, and the official view is that they should now be recognised. Temporarily, therefore, the effect is to minimise the value of comparisons. On the new basis the July figures show remarkably heavy trading both in imports and exports. The imports, valued at 90,182,430*l.*, are 13,449,987*l.* more than in July last year, and are the highest recorded for any month since the beginning of the war, with the exception of January last. Likewise the exports of British produce are the highest on record for the war period, being 49,833,635*l.*, or an increase of 3,510,578*l.* compared with July 1916. Naturally there has been a heavy falling-off in re-exports to neutral countries on account of prohibitions and restrictions, the total for the month having been reduced to 4,588,484*l.*, or 3,306,437*l.* less compared with July last year. On the import side food and the like increased by 17,051,681*l.* last month, our total purchases amounting to 48,793,514*l.*, although tobacco was almost a million less. Imports of raw materials were also less by a million, but the "oil-seeds, nuts, oils, fats, and gums" section increased by 1,087,258*l.* to 6,917,546*l.*, owing to much larger imports of copra, palm-kernels, castor-seed, petroleum oils, tallow, etc.: lin and rape seeds show heavy declines. Imports of manufactured goods showed a welcome decrease of almost three millions sterling, which applied to practically all the scheduled items. Chemicals, drugs, etc., were 392,540*l.* less, the purchases being valued at 2,185,510*l.* Painters' colours and pigments (being on the list of prohibited imports) naturally suffered the most: otherwise the decline affected the bulk of the enumerated items, with the exception of quinine and quinine salts, imports of which were as follows:

	1915	1916	1917
July ... (oz.)	614,004	154,344	569,604
Jan.-July (oz.)	2,368,446	2,295,616	2,414,345

These imports are mostly taken up by the Government, whose control of the market is practically absolute. Quicksilver imports for July amounted to 449,120 lb., against 270,249 lb. in July 1916—a decided improvement.

On the export side we continue to reduce our food-shipments, which were 1,579,861*l.* less at 1,210,072*l.*; of raw materials we shipped 6,032,290*l.* worth, including coal (4,600,344*l.*) and oilseeds and the like (729,363*l.*), the latter item being 373,371*l.* more. The figures indicate a release of considerable quantities of palm-kernel oils, tallow, and fats, of which we have evidently enough and to spare. Of manufactured goods we exported 41,163,614*l.* worth, or 4,777,428*l.* more, which is a remarkably good showing, the feature being the revival in cotton textiles by over three millions sterling. There was a decline of 368,076*l.* in shipments of chemicals and allied goods, values amounting to 2,118,790*l.*, and on the seven completed months of the year the figures attained 13,478,819*l.*, or 2,272,134*l.* less than in 1916, but 273,937*l.* more than in 1915. The July figures show an evident slackening-off in overseas trade in chemicals, particularly in medicines, this being due of course to the restriction of export licences rather than to a scarcity of orders. The medicine figures are:

	1915	1916	1917
	£	£	£
July	290,361	482,212	270,151
Jan.-July ...	1,659,240	2,477,443	1,913,770

Licences for copper sulphate were granted more freely, 3,576 tons being exported, against 2,747 tons; and soda compounds were a particularly active group, 547,472 cwt. being exported (soda ash, 358,956 cwt.), against 402,941 cwt. in July 1916.

War-time Galenicals.

There is a tendency to exaggerate the importance of the action of the General Medical Council in deleting the sixty-three preparations from the British Pharmacopœia. The chief contents of a circular to the medical profession issued by the National Insurance Commission are given on another page in this issue, and practitioners are asked to cease to prescribe the B.P. preparations which are now unofficial. The circular would have been better if some pharmaceutical experts had been called in to revise it before it was issued to the world. The remarks, for example, regarding tinct. rhei co. are very feeble because it is fairly common knowledge that glycerin is not a direct medicinal agent in this tincture. It was added to the formula in the 1898 Pharmacopœia solely for the purpose of preservation. Before 1898 thousands

of gallons of tincture must have been consumed, the activity being quite equal to the newer tincture. The same remarks apply to tinct. cardam. co., which prior to the issue of the B.P. 1914 did not contain any glycerin, this substance being added in place of raisins on the suggestion of Lucas and Stevens. The omission of the glycerin, whilst in these two cases producing a better pharmaceutical preparation, has no direct bearing on the medicinal activity, and it would have been a simple matter for the General Medical Council to have reverted to the older formula for the duration of the war. This, however, would have involved a little more trouble than the process of issuing a notice in the "Gazette." The Commissioners also "do not think it necessary to attempt to suggest alternative formulæ for all the preparations in question." In most of the deleted preparations the manufacture of substitute articles free of sugar or glycerin is a simple matter, and there is no occasion to ask a medical man "to prescribe the essential ingredients of tinct. rhei co. in some suitable alternative form." The "British Medical Journal" refers to the omissions from the Pharmacopœia in the issue for August 11, and states that "the intention of this proceeding is, of course, to diminish as far as possible the unnecessary prescribing of those galenicals containing sugar and glycerin which are relatively unimportant or for which substitutes can be devised, and it is to be hoped that the profession will aid this very desirable object as far as practicable by abstaining from prescribing the deleted articles."

From the practical point of view the wholesale druggists inform us that so far the Pharmacopœia omissions have caused no difficulty, and it has not yet as a rule been necessary to alter any of the formulæ, a point which Evans Sons Lescher & Webb, Ltd., emphasise in their advertisement in this issue. Other wholesale houses report rather large buying from chemists who seem to be laying in stocks. In regard to the alteration of formulæ, when this will be necessary, no difficulty is likely to be occasioned to practising pharmacists. There is general agreement that the increase in the strength of confectio sennæ and pulv. glycyrrhizæ co. should be carefully indicated on the labels, and several wholesale houses are adopting the words "War Emergency Formula" ("W.E.F.") to indicate a preparation the formula for which has been varied in any way from what it was in the British Pharmacopœia. In all cases labels are being used to draw attention to the altered preparations. For instance, James Woolley, Sons & Co., Ltd., employ the following wording:

"In consequence of the restrictions imposed by the Ministry of Munitions, it has been necessary to omit the glycerin from this preparation. The medicinal strength and dose are unchanged."

There are unfortunately likely to be some inconveniences caused by the desultory action of the General Medical Council. There is now nothing to check the use of undecorticated liquorice in pulv. glycyrrhizæ co., whereas if the compilers of the Pharmacopœia had given an alternative formula it would have protected the trade against the competition of inferior articles. It has been suggested to us that half the quantity of glycerin in tinct. rhei co. could have been retained, as that amount would probably have been sufficient to act as a preservative. There seems at present no suitable substitute for glycerinum acidi borici and glycerinum acidi tannici.

Scarcity of Doctors.

The Central Medical War Committee has notified the Secretary of State for War that, after a careful survey of the whole of England and Wales, it is of opinion that no more medical men can be called upon to take commissions in the Royal Army Medical Corps without seriously endangering the supply of doctors for the treatment of the civil community, and that any further depletion can only be effected on the responsibility of the Government after careful comparison of the military and civil needs. It is suggested by the British Medical Association that the War Cabinet could take up the proposal made some time ago for the mobilisation of the medical profession on a principle analogous to that of substitution instituted by the National Service Department, and also look carefully into the use now made by the Army of the large number of medical men in its ranks. It is held that by frank discussion between the military authorities and representatives of the medical profession the difficulties which are alleged to exist could be overcome.

Pricking the German Bubble.

Sir Berkeley Moynihan, C.B., M.S., F.R.C.S., Professor of Clinical Surgery in the University of Leeds, contributes to the "British Medical Journal" an historical review of the advances that have been made in surgery during recent years. The object of the article is to show that the claims made by Germans are false that all surgical advance in the last fifty years has been due to them. Sir Berkeley traces in detail with the originators of the principal surgical developments and sums up the matter as follows:

"What, then, has been Germany's part in all the astounding progress of modern surgery? It has been the same in surgery as in every other science. Almost all fundamental discoveries in science, Dugald Clerk tells us, have originated in England, France, and Italy. In capacity for original thought the German mind is lacking. The brilliant and happy inspiration, the penetrating insight, the new vision, are things for which we seek almost in vain in all German scientific literature. The fertile new thought giving a fructifying impulse to the work of others is rarely indeed of German origin. The German mind is of quite a different order. It is avaricious, industrious, methodical; it collects, if it does not accurately appraise, the work of others. It tabulates and registers and explains; it furnishes an intricate analysis, and illustrates by copious reference any subject with which it may deal. The new idea, originating almost always elsewhere, is given eager hospitality, is dissected and discussed at inordinate length; it may be put into practice with various alterations of technical procedure, and before long be claimed as a home product. For this act of intellectual dishonesty many of the German writers were not to blame; for a study of the literature of almost any subject in medicine chosen at random will show the amazing infrequency of any reference to the English or American literature, and very few indeed to the French. . . . To the claims which Germany makes for intellectual supremacy we may therefore, speaking of scientific surgery, retort by a firm and flat denial. Not one single discovery of the first importance in the science or in the art of surgery can be placed to the credit of Germany. Nor, if we omit the Semitic element in the Germany of to-day, should we expect this to be the case. For the German mind is deductive; it is patient, laborious, massive, but it is not original. The German is not an innovator, but a renovator; not an explorer, but an exploiter; not a creator, but a collector."

Sir Berkeley is well qualified to speak on this subject. It may be recalled that Sir William Ramsay as effectually unmasked German claims in regard to chemistry.

Protecting Chrome-workers.

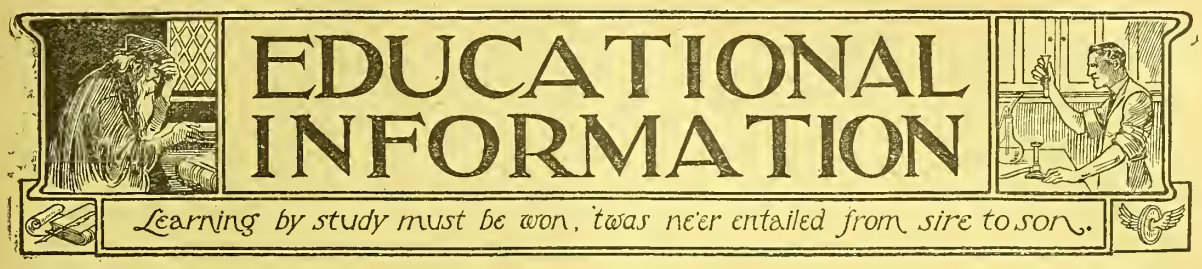
An Official Cautionary Notice has been issued to workers in chrome-factories in regard to the prevention of ulcers and eczema caused by the continued action of chrome solution on the skin. The ulcers are known as chrome "holes," and are prevented by the use of rubber gloves. In regard to chrome eczema, the following ointments are recommended for use if the skin is sensitive:

(1)	Soft paraffin (B.P.)	3 parts
	Lanoline	1 part

Melt on the water-bath or stove; when melted and thoroughly mixed, add 5 drops of 90-per-cent. pure carbolic acid to every 4 oz. of the mixture. Pour into a glass or jar, and allow to solidify, when it is ready for use. Rub the ointment in well, and then take a clean cloth and wipe dry.

(2)	Mineral lard	3 lb.
	Paraffin wax	6 oz.
	Carbolic acid	1½ oz.

Mineral lard is a synonym—not a very desirable one—for soft paraffin. Chemists in the neighbourhood of chemical-works where chromates are made may receive inquiries on this matter.



Preliminary Examinations.

Probably the most important of the after-war problems with which this country will have to deal is education, and on this account we deemed it essential that we should continue the practice of the last fifty years in publishing our annual Educational number. Although for various reasons the space we can devote to the subject is restricted, we have endeavoured to bring out the salient features which students must bear in mind in seeking to obtain the various qualifications referred to. The information regarding the schools offering educational facilities has been revised in view of the fact that many institutions are only offering modified courses at the present time. It is hoped, however, that before another Educational number is due, the end of the war will have been reached, and the youth of the Allies be ready to spring forward in a splendid effort to maintain the educational superiority which distinguishes free democracies.

The entrance conditions for qualification in pharmacy, medicine, and science are alike in some particulars, but not reciprocal unless a certain standard is reached. The simplification of the various entrance examinations is one direction in which those really interested in education are steering. It needs a firm lead from the Board of Education to insist upon co-ordination of the various examinations in the interest of the students as distinguished from the "authorities" who for different reasons take a narrow view of their responsibilities. All entrance examinations for professions the qualifications for which are controlled by law should be interchangeable, with a standard decided upon by a central authority. This would do away with the irritating differences which are often made for the purpose of fee-grabbing.

Pharmaceutical Preliminary.

The Pharmaceutical Society of Great Britain, whose Secretary and Registrar is Mr. W. J. Uglow Woolcock, 16 Bloomsbury Square, London, W.C., recognises the Preliminary examinations of nineteen universities and other examining bodies. The required subjects of examination are English, arithmetic, geometry, algebra, and two optional subjects. Latin is no longer obligatory before registration as a student, but we recommend students to take the language at this stage if possible. The six subjects may be taken at not more than three examinations.

The *College of Preceptors*, Bloomsbury Square, London, W.C., holds examinations for Senior and Junior Certificates four times a year—viz., in March, June, September, and December. Both grades are accepted by the Pharmaceutical Society, provided that the candidates pass in English, arithmetic, algebra, geometry, and two other subjects. The six subjects may be distributed among three examinations. Fees, 25*s.* and a local fee in March and September, 15*s.* and a local fee in June and December.

The *Educational Institute of Scotland* (Secretary, Mr. H. Cameron, 34 North Bridge, Edinburgh) holds examinations specially for pharmaceutical students in January, April, July, and September. Fee, 1*l.* for the first examination and 10*s.* for any subsequent one.

Welsh students usually present certificates of the Central Welsh Board. Full particulars regarding these and other suitable examinations are given in the "Complete Guide to Preliminary Examinations for Pharmacy, Medicine, Dentistry, Veterinary Surgery, and Science," published by The Chemist and Druggist at 2*s.* 6*d.*, post free 2*s.* 9*d.*

In Ireland persons who propose to register as pharmaceutical chemists are required before beginning an apprenticeship of four years to pass the Preliminary examination conducted by the Pharmaceutical Society of Ireland, which, however, accepts in place of it certificates of certain examining bodies. The subjects of examination are: Latin, English, arithmetic, algebra, geometry, and either French, German, or any modern language. It is held in Dublin on the first Thursdays and following days in January, April, July, and October. Fee, 2*l.* 2*s.*; re-examination fee, 10*s.* 6*d.* Particulars can be obtained from the Registrar (Mr. A. T. Ferrall), 67 Lower Mount Street, Dublin.

Veterinary Preliminary.

The subjects of examination are similar to those required of pharmaceutical students, except that in the Veterinary examination English includes history and geography. Latin is optional.

Medical and Dental Preliminary.

The General Medical Council require all candidates desirous of registering as medical students to present certificates which include Latin, though they cannot refuse to register the names of qualified medical men who may not have passed an examination in Latin. In the London Matriculation examination all the subjects must be passed at one examination, but for most of the examining bodies whose certificates are accepted by the General Medical Council the subjects may be passed at not more than two examinations. Further particulars can be had from Mr. F. G. Hallett, Secretary of the Conjoint Board, 8-11 Queen Square, London, W.C.

Pharmacy.

In order to become a chemist and druggist or pharmacist, it is necessary to pass an approved Preliminary examination and be registered as an apprentice or student of pharmacy. For the latter, the Registrar of the Pharmaceutical Society, Mr. Woolcock, 16 Bloomsbury Square, London, W.C., will, on request, send a copy of the regulations and an application-form, which gives all the particulars. Apprenticeship is not obligatory, but no person is allowed to enter for the Minor or Qualifying examination until he or she is twenty-one years of age and produces a declaration that he or she has been *practically engaged in the translation and dispensing of prescriptions for three years prior to applying for admission to the examination.* In most cases it is the aim of the student to make retail pharmacy his life's work, and the value of a good apprenticeship under an expert pharmacist and competent business man cannot be over-estimated. During his period of pupilage the apprentice should map out and follow a course of preparation for the Minor examination. In the majority of cases the student will be within reach of a technical school, and classes in chemistry, physics, and botany are available at most of these institutions. He should take full advantage of such facilities as exist in his neighbourhood as well as devote himself to private study. The following are suitable books for pharmacy students:

Botany.

"Elementary Botany," Edmonds (Longmans), 2*s.* 6*d.*
"Text-book of Botany," Amy Johnson (Allman), 7*s.* 6*d.*
"Structural Botany": Part 1, "Flowering Plants"; Part 2, "Flowerless Plants," D. H. Scott (Black), each 3*s.* 6*d.*
"Botanists' Pocket Book," Hayward, revised by G. C. Druce (Bell), 4*s.* 6*d.*
"Practical Botany for Beginners," Bower and Gwynne-Vaughan (Macmillan), 3*s.* 6*d.*

Theoretical Chemistry.

"Elementary Inorganic Chemistry," James Walker (Macmillan), 3*s.* 6*d.* (suitable for beginners).
"Text-book of Inorganic Chemistry," Senter (Methuen), 6*s.* 6*d.*
"Modern Inorganic Chemistry," Mellor (Longmans), 7*s.* 6*d.*
"Theoretical Organic Chemistry," Cohen (Macmillan), 6*s.*

Practical Chemistry.

"Short Manual of Analytical Chemistry," Muter (Baillière), 6*s.*
"Qualitative Chemical Analysis, Organic and Inorganic," F. Mollwo Perkin (Longmans), 4*s.*

Pharmaceutical Latin and Prescription-reading.

"Latin Grammar of Pharmacy," Joseph Ince (Baillière), 6*s.*
"Medical and Pharmaceutical Latin for Students of Pharmacy and Medicine," R. R. Bennett (Churchill), 6*s.*

Materia Medica.

"A Text-book of Materia Medica," Greenish (Churchill), 15*s.*
"Materia Medica," Southall, revised by E. W. Mann (Churchill), 7*s.* 6*d.*

PHARMACY.

"British Pharmacopœia," (Constable), 10*s.* 6*d.*
"Practical Pharmacy," Lucas (Churchill), 12*s.* 6*d.*
"The Art of Dispensing," MacEwan (*C. & D.* Office), 6*s.*

MINOR OR QUALIFYING EXAMINATION.

The following is an epitome of the official syllabus (which can be obtained from Mr. Woolcock on application):

SUBJECTS OF THE EXAMINATION.

BOTANY.—(*a*) *Classification.*—The main divisions of the vegetable kingdom—viz., Thallophyta, Bryophyta, Pteridophyta, Gymnosperms, and Angiosperms, and their chief distinguishing features; the classes and sub-classes of the Angiosperms, and the description of flowering plants in technical language. A list of about fifty British plants is given for recognition. (*b*) *Morphology (including Anatomy).*—The external forms of plants, homology and analogy; buds, branching and branch systems, leaves and their arrangement on the stem, the inflorescence, flower, and fruit; a general acquaintance with the anatomy of plants, and recognition of sections by the aid of the microscope. (*c*) *The elementary facts* connected with the physiology of plants, and the nature of the chief plant constituents; the manner in which plants grow and the effect of external stimuli upon them; sexual and asexual reproduction.

CHEMISTRY AND PHYSICS.—An elementary knowledge of: (*a*) The physical laws (including simple problems relating to the weight and volume, under different conditions of temperature and pressure, of elements and compounds concerned in chemical reactions). (*b*) Elements and compounds; the chief characteristics of chemical action; chemical combination; atomic and molecular weights; chemical formulæ, nomenclature, and notation; valency; the difference between metals and non-metals. (*c*) The non-metals, their general characters, preparation, and the typical reactions of non-metallic elements and their compounds, and the impurities of such of them as are used in pharmacy. (*d*) The metals, their isolation; the methods of preparation and properties of oxides and salts; the adulterations and impurities of the official salts. (*e*) Carbon compounds of importance in pharmacy, the methods of preparation and their mutual relationships; the detection and estimation of elements in organic compounds, and the determination of molecular formulæ. *Practical Examination.*—Determination of specific gravities; use of the thermometer and barometer; recognition of the more important elements and compounds by tests; qualitative analysis of a mixture containing not more than two basic radicles and two acidic radicles; the identification of certain organic compounds; volumetric determinations described in the British Pharmacopœia; the use of the balance and the imperial and metric systems of weights and measures; the assay processes of the British Pharmacopœia; the preparation of certain official inorganic and organic compounds.

MATERIA MEDICA.—Recognition of the crude drugs of the British Pharmacopœia and in the list given in the syllabus, their botanical and geographical sources, natural orders, commercial varieties, methods of collection and preparation for the market, morphological nature, chief active constituents and their nature and percentage usually present: also a practical knowledge of the pharmacopœial tests and assay processes applied to crude drugs or their official products.

PHARMACY.—(*a*) Operations requiring the use of heat. (*b*) Disintegration of solid substances; the nature of solution, the solvent power of various liquids, and the influence of specified conditions: the processes by which the official preparations are made; and the proportion of active ingredient or crude drug in the more potent of the official preparations. (*c*) The principles involved in the dispensing of medicines. (*d*) A knowledge of the law as regards the sale (by retail and wholesale) of scheduled poisons and of the schedule itself, the dispensing of poisons, and the regulations for the sale of arsenic. *Practical Pharmacy and Dispensing* includes the making of pharmacopœial preparations and the compounding and dispensing of medicines (B.P. 1914).

PHARMACEUTICAL LATIN AND PRESCRIPTIONS.—The reading of autograph prescriptions in English or Latin, and rendering into good Latin prescriptions written in English; a knowledge of posology and pharmaceutical calculations.

Every student should also get a copy of "Minor Experiences," published by the *C. & D.* at 2*s.* 6*d.*, by post 2*s.* 9*d.*; the examination is practical and oral, but the book contains accounts of it by more than fifty who have passed. The examination is conducted by the Board of Examiners for England and Wales (meeting in London) and the Board for Scotland (meeting in Edinburgh). The examinations are held in January, April, July, and at the end of September or the beginning of October. Each candidate must give notice and pay the fee of ten guineas to the Registrar, 17 Bloomsbury Square, London, on or before the 15th day of the month previous to that in which the examination is held. The examination extends over two days, the practical portion of the chemistry and pharmacy and dispensing being taken on the first day. If the candidate is unsuccessful in these subjects, he or she is not called upon to attend the second part of the examination. If successful in the practical work, the candidate is notified of the date of the oral examination in the rest of the subjects.

THE MAJOR EXAMINATION.

This examination for the title "pharmaceutical chemist" is open to all candidates who have passed the Minor examination; fee 3*l.* 3*s.* Examinations are held in April and July only, in Edinburgh and London, and candidates must enter not later than the 15th of the preceding month. The examination extends over three days, and includes chemistry, physics, materia medica and pharmaceutics, and botany of a more advanced type than that of the Minor. The examination is partly written and partly practical. Heat and light, electricity and magnetism, taxonomy, the detection of adulterants in entire and powdered drugs by the microscope, gravimetric analysis, gasometric analysis, alkaloidal assays, and the chemistry of carbon compounds are the chief subjects. The examination should be taken soon after passing the Minor, as the syllabus is largely an extension of Minor work.

PHARMACEUTICAL EDUCATION.

The following are the chief institutions in Great Britain offering specialised study in subjects for the pharmaceutical examinations:

Aberdeen.

ROBERT GORDON'S TECHNICAL COLLEGE.—Mr. Gilbert Simpson, Ph.C., School of Pharmacy teacher. Short course begins August 27, 1917; fee, 3*l.* 3*s.*, or 8*l.* 8*s.* with succeeding term. Ordinary terms commence on October 3, January 7, and April 3; fees, 7*l.* 7*s.*, and 6*l.* 6*s.* per term after the first. Major practical work, 3*l.* 3*s.* per term. Evening classes (Mondays, Tuesdays, and Thursdays) begin on October 1; fees, 10*s.* 6*d.* to 1*l.* 1*s.* per subject.

Bath.

BATH AND WEST OF ENGLAND COLLEGE OF CHEMISTRY AND PHARMACY, 6 Cleveland Place East, Bath.—Principal: Mr. David J. Williams, Ph.C., F.C.S. Minor foundation course, September 12; fee, 9*l.* 9*s.* January or April term, 8*l.* 8*s.* Rapid revision course for October examinations, August 15; fee, 5*l.* 5*s.* Evening classes, 1*l.* 1*s.* to 2*l.* 10*s.* 6*d.* Major course, three months 7*l.* 7*s.*, six months 13*l.* 13*s.* Apothecaries' Assistants' course, six months 9*l.* 9*s.*, three months 5*l.* 5*s.* New course commenced on August 15. Postal instruction given. Special classes and rooms for ladies.

Birmingham.

BIRMINGHAM AND MIDLAND COLLEGE OF CHEMISTRY, PHARMACY, AND BOTANY, 45 Newhall Street, Birmingham.—Principal: Mr. G. L. Scott, Ph.C. Courses for the Minor start on October 3 and early in January, April, and July; fees, three months 8*l.* 8*s.*, six months 15*l.* 15*s.*, nine months 21*l.* A short course for the October Minor begins on August 20. Afternoon and evening classes are also held. Instruction is also provided for the Major and for the Apothecaries' Hall examination.

MUNICIPAL TECHNICAL SCHOOL, Suffolk Street, Birmingham.—Principal: Dr. W. E. Sumpner, M.Inst.E.E. Pharmacy class, Wednesdays, 2.30 to 5.30 P.M.; fee 5*s.* per session first year, 7*s.* 6*d.* second, and 10*s.* for the third. Secretary: Geo. Mellor.

Blackburn.

TECHNICAL SCHOOL.—Principal: Dr. R. H. Pickard, F.R.S. Two years' day course in chemistry, physics, and botany for pharmacy students specially, also evening classes.

Bradford.

TECHNICAL COLLEGE.—Principal: Professor W. M. Gardner, M.Sc., F.I.C. Minor course of three terms (day), materia medica, pharmacy, and botany; lectures in evening class also. Fees, 5*l.* 10*s.* (day course) and 21*s.* (evening course). Apothecaries' Assistants' examination also provided for.

Bristol.

UNIVERSITY.—Chemistry, botany, pharmacy, and materia medica by Dr. O. C. M. Davis, Ph.C., F.I.C., and other teachers. Registrar: Mr. James Rafter, M.A.

MERCHANT VENTURERS' TECHNICAL COLLEGE.—Principal: Professor J. Wertheimer, B.A., D.Sc. Lecturers on chemistry: Mr. H. A. M. Borland, A.R.C.S., and Miss Annie M. Herbert, B.Sc. Minor classes on Monday, Tuesday, and Friday evenings, commencing September 24. Fees, 10*s.* per class.

Derby.

TECHNICAL COLLEGE.—Principal: Mr. F. W. Shurlock, B.A., B.Sc. Mr. S. Taylor, Ph.C., teaches pharmacy and materia medica on Wednesdays; fee, 1*l.* 1*s.* per term. Chemistry and botany classes also.

Dundee.

TECHNICAL AND UNIVERSITY COLLEGES.—All science subjects, including chemistry and botany for pharmacy students.

Edinburgh.

CENTRAL SCHOOL OF PHARMACY, 26 Clyde Street, Edinburgh.—Principal: Mr. W. Beaverley Cowie, Ph.C., F.C.S.

HERIOT-WATT COLLEGE, Chambers Street, Edinburgh.—Principal: Dr. A. P. Laurie, M.A., F.I.C. Pharmaceutics lectures by Mr. William Duncan, Ph.C., F.C.S., on Tuesday evenings; fee 5*s.* Chemistry (Dr. A. A. Boon), Botany (Dr. R. Stewart Macdougall), and other science subjects; fees, 5*s.* to 1*l.* 1*s.*

ROYAL DISPENSARY AND SCHOOL OF PHARMACY, 21 West Richmond Street, Edinburgh.—Principal: Mr. W. Duncan, Ph.C., F.C.S., assisted by Mr. W. G. Mackenzie, Ph.C. Session opens October 3, and other Minor courses in January and April; fee 8*l.* 8*s.* per term. Evening classes Mondays, Thursdays, and Fridays from October 4; fee, 3*l.* 3*s.* for three months.

Exeter.

EXETER UNIVERSITY COLLEGE.—Evening classes in pharmacy and materia medica are available. Fee 1*l.* 11*s.* 6*d.* per term.

Glasgow.

SCHOOL OF PHARMACY, 180 West Regent Street, Glasgow.—Principal: Mr. M. M. Irvine, Ph.C., D.B.O.A. Three months' Minor courses begin on October 8, and a short summer course on August 20. Evening course commences on October 8 for two years.

Huddersfield.

Technical College.—Minor course includes instruction in pharmacy and materia medica by Mr. J. B. Broadbent, Ph.C., on Tuesday afternoons; fee, 6*l*. 6*s*. per annum. Evening classes (chemistry, botany, and physics), 15*s*. 6*d*.; afternoon pharmacy, 25*s*.

Hull.

Municipal Technical College, Park Street, Hull.—Chemistry Department by Mr. Geo. E. Johnson, B.Sc., F.I.C. Evening and day classes in chemistry. Evening fees, 5*s*. to 10*s*.; day by arrangement.

Leeds.

Central Technical School.—Principal: Mr. R. E. Barnett, B.Sc. Minor course (three evenings per week) begins September 24; fee, 3*l*. per session. Preparatory course, 15*s*. per session. Preliminary examination classes at the Central School of Commerce, Woodhouse Lane; fee, 30*s*. per session. A day course for women assistants has been arranged jointly with the Leeds Public Dispensary Board.

College of Pharmacy.—Principal: Mr. F. Pilkington Sargeant, Ph.C., F.C.S. Minor course, October 16. Separate classes for ladies.

Liverpool.

School of Pharmacy, 18 Colquitt Street, Liverpool.—Principal: Mr. H. Humphreys Jones, Ph.C., F.C.S. Revision class for October Minor started August 15; fee, 4*l*. 14*s*. 4*d*. Full Minor courses commence September, January, and April; fees, three months 9*l*. 9*s*., six months 16*l*. 16*s*. Apothecaries' Assistants' examination course August 15. Tuesday and Wednesday part-time classes (3 p.m. to 10 p.m.) begin September 12 and 13.

London.

School of Pharmacy, 17 Bloomsbury Square, London, W.C.—The staff includes: Mr. J. Small, M.Sc. (Lond.), Lecturer in Botany; Professor Henry L. Smith, B.Sc., F.I.C., Chemistry and Physics; and Professor Henry G. Greenish, F.I.C., F.L.S., Pharmaceutics. Session begins October 3. Minor course until the end of June 1917; fee, 32*l*. 11*s*., or 30*l*. to student-associates. Additional term, 6*l*. 6*s*. Major course ends March 1918; fee, 18*l*. 18*s*., or 18*l*. to members of the Society. Summer term for students who have completed the advanced course, 4*l*. 4*s*. Shorter periods by special arrangement at appropriate fees. Dean: Professor Greenish.

London College of Pharmacy, 361 Clapham Road, S.W. 9.—Principal: Mr. Henry Wootton, B.Sc. Courses of instruction are provided for the Minor and Major examinations, and for the Assistants' examination of the Apothecaries' Society. There is a botanical garden at the College. Separate classrooms and museums for women students.

South of England College of Pharmacy, 186 Clapham Road, London, S.W.—Principal: Mr. H. Lucas, Ph.C., F.C.S. Minor courses (three months) commence on October 1, January 1, and April 1; fee, 9*l*. 9*s*., or two terms for 17*l*. 6*s*. 6*d*. A special course, suitable for ladies wishing to qualify as dispensers, begins on November 1; fee, 5*l*. 5*s*. for three months, 8*l*. 8*s*. for six months, preparing for the Apothecaries' Assistants' examination. Evening classes on Mondays, Wednesdays, and Thursdays, 6.30 to 9 p.m., from October 2 to July; fees, Minor 8*l*. 18*s*. 6*d*., Major 8*l*. 8*s*. Correspondence tuition from 1*l*. 1*s*.

Westminster College of Chemistry, Pharmacy, and Botany, 190 Clapham Road, London, S.W. 9.—Principals, Mr. G. S. V. Wills, Ph.C., and Mr. P. H. Woodnoth. Minor terms, September to Christmas, January to April, April to July, and revision course August to October examination each year. New terms for the Apothecaries' Hall examination commence in February, May, August, and November each year. A postal course of instruction for all the Pharmaceutical examinations is also conducted.

Misses M. E. Buchanan, S. J Heywood, and D. Maughan, Gordon Hall, Gordon Square, London, W.C., are pharmaceutical chemists who, as women, are specially versed in the requirements of those of their sex who need training in the subjects of the Pharmaceutical examinations or in dispensing. Individual coaching and short courses of dispensing, chemistry, and materia medica can be arranged. Apply by letter for particulars. Interviews by appointment.

Elt's College, North Finchley, London, N. 12.—Principal: Mr. E. E. Elt, B.Sc. Minor and Apothecaries' Hall courses in day classes. Postal tuition also, which may be combined with practical work at the College. The day classes reopen on August 29.

Battersea Polytechnic, Battersea Park Road, S.W.—Complete day and evening courses in chemistry, botany, physics, etc. Evening courses in pharmacy, dispensing, materia medica, botany, chemistry, and physics for the examinations of the Pharmaceutical Society, the Conjoint Board, and the Apothecaries' Hall.

City of London College, White Street, Moorfields, London, E.C.—Chemistry classes suitable for the Minor examination on Tuesday, Wednesday, and Friday evenings. Sessional fee from 15*s*. to 30*s*. for each class. Write to Mr. David Savage, Secretary.

West Ham Municipal Technical Institute.—Principal: Dr. J. R. Airey. Course in pharmaceutical subjects; fee, 25*s*.

South-Western Polytechnic Institute, Manresa Road, Chelsea, S.W.—Courses (day and evening) for the Minor, Major, and Apothecaries' Hall commence on September 24. The courses cover two years, but students with a good fundamental training may complete their studies in one session. Sessional fees: Minor or Major, day 7*l*. 10*s*., evening 1*l*. 5*s*.; Apothecaries' Hall, day 9*l*., evening 1*l*. 5*s*. The Head of the Chemical Department will advise students as to the suitable courses of study, also for post-graduate students. Full particulars may be obtained from the Secretary of the Institute (Room 73).

Manchester.

University of Manchester.—The Minor and Major courses in the Pharmaceutical Department commence in October and extend over six or nine months, the composition-fees being 15*l*. 15*s*. and 19*l*. 19*s*. respectively. Students with previous adequate knowledge of science subjects can arrange to attend one whole day each week. A complete two-years' part-time course for the Minor examination is given partly at the Municipal School of Technology and partly at the University. Degree courses in pharmacy are available here; average cost per session, 20*l*. to 25*l*. Mr. James Grier, M.Sc., Ph.C., is the pharmacy instructor, and Mr. E. G. Bryant, Ph.C., F.C.S., Principal of the Northern College of Pharmacy, has been appointed lecturer in chemistry. A three-months' course in bacteriology is also available for Major students; fee, 2*l*. 2*s*.

Municipal School of Technology, Sackville Street, Manchester. Two-year course for the Minor examination will be held on Wednesday afternoons and evenings in the School of Technology and Owens College, completing with a short course (whole-time) at Owens College, from the middle of April to the July examination. For prospectus apply to the Registrar of the School of Technology.

Manchester College of Pharmacy, 292 Oxford Road.—Principals: Mr. Harry Brindle, Ph.C., F.C.S., and Mr. Charles Turner, Ph.C., F.C.S. Minor classes (full-time) commence on August 20 and October 1; part-time classes, Tuesday, September 4, and Wednesday, September 5. New terms commence in first weeks of January and April. Major classes on same dates. Two special ladies' classes for the Apothecaries' Hall examination.

Northern College of Pharmacy, 100 and 102 Burlington Street, Manchester.—Principal: Mr. E. G. Bryant, Ph.C., F.C.S. Short Minor revision course begins on August 21; four-months Minor, September 4; fee 10*l*. 12*s*. Three months' courses start in October, January, and April; fee, 9*l*. 9*s*. Afternoon, once-a-week, and evening courses also commence in September and January; fees, 2*l*. 10*s*. to 4*l*. 4*s*. The part-time classes of the College are arranged in conjunction with those of the School of Technology. Entries should be made during the week commencing September 24. Major courses are also provided. A ladies' course is provided for the Apothecaries' Assistants' examination. Correspondence tuition for all examinations is also offered.

Nottingham.

University College.—Evening courses preparing for the Minor examination cost 7*s*. 6*d*. first year, 12*s*. 6*d*. second year, 40*s*. third and fourth years. Course for women dispensers; fee, 3*l*. per term. Acting Registrar: Mr. J. E. Shimeld.

Plymouth.

Municipal Science Schools.—Principal: Mr. W. S. Templeton, M.A., B.Sc. Day course in chemistry and dispensing; fee, 4*l*. 10*s*. per session; dispensing, 1*l*. per term, or 2*l*. per session. Evening pharmaceutical courses in chemistry and botany; fee, 10*s*. per session. Day part-time pharmaceutical course, 1*l*. 1*s*. per session.

Portsmouth.

Municipal College.—Principal: Mr. Oliver Freeman, B.Sc. A.R.C.S. Pharmaceutical courses (day and evening) in the subjects for the Minor (two years) and Major (three years).

Salford.

Royal Technical Institute.—Special day courses in chemistry and physics are arranged for pharmaceutical students on the lines proposed by the Pharmaceutical Society. Information with regard to these courses may be obtained from the Principal of the Institute, Mr. B. Prentice, D.Sc., Ph.D

Sheffield.

Central Secondary Schools.—Principal: Mr. J. W. Iliffe, M.A. Pharmaceutical course (evening) extending over three years, with Mr. E. Preston, Ph.C., as instructor in pharmacy and materia medica. Fees, 4*s*. to 15*s*. 6*d*. Classes in botany, chemistry, Latin, and other subjects are held.

Southampton.

University College.—Minor and Major courses from October to June; fee, 16*l*. Apothecaries' Assistants' examination; fee, 12*l*. Evening classes in chemistry, botany, and physics suitable for pharmaceutical students; fees, 5*s*. to 10*s*. per subject. See "Prospectus of Courses for Pharmaceutical Students," to be obtained from the Registrar.

Apothecaries' Assistants' Certificates.

Women dispensers are much wanted owing to man-shortage, and the qualification best adapted for this temporary purpose is the Assistants' certificate offered by the Society of Apothecaries, Water Lane, Blackfriars, London, E.C. The certificate, which entitles its holders to act as *assistants to apothecaries* who are licentiates of the Society, is obtained on the following conditions:

(*a*) The candidate (male or female) must be at least nineteen years of age.

(*b*) A certificate of sound general education must be produced.

(*c*) A certificate signed by an apothecary's assistant holding a public appointment, a registered chemist and druggist, or a registered medical practitioner, showing that special instruction in practical pharmacy has been taken for six months.

(*d*) The candidate must pass an examination in (1) compounding and dispensing medicines, (2) chemistry, (3) materia medica and pharmacy, and (4) prescription-reading.

Particulars can be obtained from Mr. Frank Haydon, L.R.C.P., Secretary to the Court of Examiners, The Apothecaries' Hall, Blackfriars, London, E.C.

Ireland.

The examination and registration body in Ireland is the Pharmaceutical Society of Ireland, 67 Lower Mount Street, Dublin, whose Secretary and Registrar is Mr. A. T. Ferrall.

Licence Examination.

For this examination, to qualify as pharmaceutical chemist, the conditions to be fulfilled by candidates are as follows:

After passing a Preliminary examination, and being registered as an apprentice, the person must serve four years as apprentice or assistant *in an open shop*, and the candidate must spend the business day with his employer. He must also attend three-months' courses of lectures in theoretical chemistry, botany, and materia medica, and a three-months' course of practical chemistry (after the lectures in theory) at an approved institution, and must be twenty-one years of age.

The examination commences on the second Wednesdays of January, April, July, and October, and is held at 67 Lower Mount Street, Dublin. Candidates must give the Registrar notice of intention to attend fourteen clear days before the date of the examination and pay a fee of 5*l.* 5*s.*

The subjects of the Licence examination are:

Botany: Recognition of the principal indigenous plants used in medicine, their natural orders, and the characters of their several parts.

Materia Medica: Recognition of B.P. drugs; their characters, active principles, sources, official preparations, and adulterations.

Chemistry: Elementary laws of chemistry and physics, including equations. Recognition of B.P. chemicals, the processes by which they are obtained, qualitative analysis (including B.P. tests) and volumetric analysis, and a practical examination in these subjects. (The Council recommends Corbyn and Stewart's "Physics and Chemistry.")

Practical Pharmacy: Translation of Latin prescriptions, detection of dangerous doses, and compounding and dispensing. Processes of making and recognition of B.P. non-chemical preparations, and an intimate knowledge of the Sale of Poisons (Ireland) Act.

The examination is written, practical, and oral. Minimum pass percentage in pharmacy is 50, and in botany, materia medica, and chemistry 40 each, with 55 per cent. in the aggregate. Honours are given to candidates who take 70 per cent. of the total marks, with not less than 50 per cent. in any subject.

The Examination for Assistants to pharmaceutical chemists is held quarterly on the Saturdays following the Licence examination, so as to meet the convenience of those who fail to obtain the licence. Fee, 1*l.* 1*s.* The subjects are prescription-reading and translation (including the detection of unusual doses), practical dispensing, materia medica, pharmacy (including recognition of non-chemical pharmacopœial preparations and a knowledge of the proportions of active ingredients in these), and the laws relating to the sale of poisons in Ireland.

Registered Druggist Examination.

The subjects of this examination are prescribed by the Pharmacy Act, 1890, in the following terms:

English orthography and composition.

Arithmetic and the weights and measures of the British Pharmacopœia.

The appearance and properties of the various drugs and chemicals in general use.

The Sale of Poisons (Ireland) Act.

The examination is open to anyone who has served as an assistant or apprentice for not less than four years to a pharmaceutical chemist, chemist and druggist, registered druggist, or licentiate apothecary keeping open shop. It is held in Dublin and Belfast (if twelve candidates apply) on the second Tuesdays of January, April, July, and October. Fee, 4*l.* 4*s.*

Re-examination Fees.—Pharmaceutical Licence examination, 2*l.* 2*s.*; Assistants' examination, 10*s.* 6*d.*; Registered Druggist examination, 10*s.* 6*d.*

For the examination questions see the Calendar of the Society (2*s.* 9*d.* post free from the Registrar).

Apothecaries' Assistants.—The Apothecaries' Hall of Ireland, 40 St. Mary Street, Dublin, holds an examination for a similar certificate to the London one on the first Friday of each month except August. Fee, 4*l.* 4*s.* (re-examination, 2*l.* 2*s.*).

Educational Institutions.

Pharmaceutical Society's Schools, 67 Lower Mount Street, Dublin.—Directors: Chemistry School, Professor G. Brownlee, B.Sc.; Botany and Materia Medica School, Mr. Patrick O'Connor, A.R.C.Sci.I., and Mr. W. Hopkins Ashmore, M.P.S.I. The sessions (three) commence on the first day in October, January, and April. The fees for courses to meet the Society's regulations are: Theoretical chemistry (three months), 1*l.* 1*s.*; practical chemistry (six months), 6*l.* 6*s.*; practice course (three months), past students 2*l.* 2*s.*, students of other schools 3*l.* 3*s.*; botany and materia medica (three months), 2*l.* 2*s.* The theoretical chemistry class is held on Tuesday and Thursday evenings, and the practical chemistry class on Monday, Wednesday, and Friday evenings. A day class for practical chemistry (three months) begins in April, fee 6*l.* 6*s.*; also a day practice course. The botany and materia medica classes are held on Tuesday and Thursday evenings with occasional Saturday demonstrations. The day course in chemistry is recognised by the Royal Colleges of Physicians and Surgeons in Ireland.

Belfast Municipal Technical Institute.—The Pharmaceutical Section of the Pure and Applied Chemistry Department provides full courses in evening classes, also in pharmacy. Fees, 5*s.* to 10*s.* per subject per session.

School of Scientific Method and Chemistry, The Gables, Botanic Avenue, Belfast.—Principal: Mr. S. Templeton, A.R.C.S., F.I.C. The fees are: Theoretical chemistry, 1*l.* 1*s.*; practical chemistry, 4*l.* 4*s.*; botany, 1*l.* 1*s.*; and materia medica, 1*l.* 1*s.* Instruction in pharmacy is also given. The new terms begin on September 4 and January 1. Revision courses and classes for the Pharmaceutical Assistant and Registered Druggist examinations are also held.

Scholarships and Prizes.

There are several scholarships and prizes connected with pharmacy available either for apprentices or for those who have passed the Qualifying examination. We give a list of these. Further particulars are obtainable from the Secretaries or institutions mentioned:

Aberdeen Pharmaceutical Association prizes.

Bell Scholarships.—Pharmaceutical Society of Great Britain.

Burroughs Scholarship.—Pharmaceutical Society of Great Britain.

Clayton Scholarship.—Mr. E. G. Bryant, F.C.S., 100 and 102 Burlington Street, Manchester.

Corner for Students prizes. The Chemist and Druggist, 42 Cannon Street, London, E.C.

Edinburgh Chemists', Assistants', and Apprentices' Association prizes.

Fairchild Scholarship and Prizes.—Secretary, Mr. A. E. Holden, Albert Chambers, 64 and 65 Holborn Viaduct, London, E.C.

Haslett Medal.—Chemists and Druggists' Society, Belfast.

Herbarium Competition.—Pharmaceutical Society of Great Britain.

Hewlett (Charles James) Memorial Exhibition.—Pharmaceutical Society of Great Britain.

Kinninmont Prize.—Secretary, r. W. L. Currie, 223 Byres Road, Dowanhill, Glasgow.

Manchester Scholarship.
Martindale Medal.
Pereira Medal.
Ransom Research Fellowship.
Redwood Scholarship.
Salters' Research Fellowship.
} Pharmaceutical Society of Great Britain.

Pharmaceutical Society of Great Britain.—In addition to the scholarships and prizes mentioned above, there are silver and bronze medals offered annually for competition.

Pharmaceutical Society of Ireland.—Council gold and silver medals.

Dispenserships.

Official positions as dispensers or pharmacists are open to qualified chemists in the principal hospitals and dispensaries of the United Kingdom, the tendency being to replace unqualified dispensers by registered persons. There are also dispenserships under Boards of Guardians, the Metropolitan Asylums Board, and the Prison Commissioners. Naval hospitals employ pharmacists for dispensing and store-keeping, while the Army has a class of compounders, not necessarily pharmacists, in the Royal Army Medical Corps. We shall be pleased to answer inquiries in regard to the positions enumerated above.

Medicine.

The educational conditions which have to be fulfilled before a person can be registered as a general medical practitioner embrace the following provisions as formulated by the General Medical Council:

(1) After attaining the age of sixteen years a person may pass an approved Preliminary examination, and within fifteen days of beginning medical studies he should register as a medical student at either of the following addresses:

The Registrar of the General Medical Council, 44 *Hallam Street, Portland Place, London, W.*

The Registrar of the Branch Council for Scotland, 54 *George Square, Edinburgh.*

The Registrar of the Branch Council for Ireland, 35 *Dawson Street, Dublin.*

(2) The medical studies must be undertaken at a school or schools approved by the General Medical Council, and the curriculum must not be less than five academic years (fifty-seven months) from the date of registration as a medical student.

(3) The student must pass in the course of his education a series of Professional examinations, these being arranged so that they come at the end of the prescribed studies.

All the Universities in the United Kingdom, the Royal Colleges of Physicians and Surgeons in England, Ireland, and Scotland, the Apothecaries' Society of London, and the Apothecaries' Hall, Dublin, are authorised to grant diplomas or degrees in medicine, surgery, and midwifery

(three essentials), which enable the holder to be registered as a general medical practitioner, this being done by the General Medical Council at a cost of 5*l*. The *Regulations* prepared by the General Medical Council, and published at 6*d*., or 7*d*. post free, by Constable & Co., Ltd., 10 Orange Street, Leicester Square, London, W.C., should be obtained by medical students, who should obtain also the prospectus of the medical school at which they propose to study.

There are various educational and examining bodies for the diplomas and degrees in medicine, but all have to conform in the main to the curriculum of study laid down by the General Medical Council, which stipulates that in every course of professional study and examinations the following subjects should be contained:

(1) *Physics*, including the elementary mechanics of solids and fluids, and the rudiments of heat, light, and electricity; (2) *Chemistry*, including the principles of the science and the details which bear on the study of medicine; (3) *Elementary Biology;* (4) *Anatomy;* (5) *Physiology;* (6) *Materia Medica and Pharmacy;* (7) *Pathology;* (8) *Pharmacology and Therapeutics;* (9) *Medicine*, including medical anatomy and clinical medicine; (10) *Surgery*, including surgical anatomy and clinical surgery; (11) *Midwifery*, including diseases peculiar to women and to new-born children; (12) Theory and practice of *Vaccination;* (13) *Forensic Medicine;* (14) *Hygiene;* (15) *Mental Diseases;* (16) *Anæsthetics.*

When a student has finished the first year's work he enters for the First Professional examination in physics, chemistry, and biology. After passing these he goes on to the second year's subjects, studies them, passes the Professional examination in anatomy and histology (sometimes pharmacology), and so on to the end of the curriculum. The following is a list of the Universities granting medical degrees, and the addresses from which particulars as to the curriculum, examinations, and fees can be obtained:

Aberdeen.—Secretary, Mr. D. R. Thom, University of Aberdeen.
Belfast.—Queen's University.
Birmingham.—Secretary, Mr. Geo. H. Morley.
Bristol.—The Registrar, Bristol.
Cambridge.—Dean of the Medical Faculty.
Cardiff.—Registrar, University Registry, Cathays Park, Cardiff.
Dublin.—Trinity College and University College.
Durham.—The Secretary, The College of Medicine, Newcastle-on-Tyne.
Edinburgh.—Mr. James Dowie, The University, and Professor Littlejohn, Dean.
Glasgow.—Professor Noel Paton, M.D., The University.
Leeds.—The Academic Sub-Dean and the Clerk to the Senate.
Liverpool.—Dean of the Faculty of Medicine.
London.—The Secretary, University, North Kensington, London, S.W.
Oxford.—Regius Professor of Medicine, University Museum.
St. Andrews.—Professor Kynoch, University College Medical Faculty, Dundee.
Sheffield.—Registrar, Mr. W. M. Gibbons, M.A., or Professor J. B. Leathes, Dean of the Faculty of Medicine.

Medical diplomas, which are the registrable qualifications of the greater number of doctors, are granted by the following Corporations:

English Diploma.—Conjoint diploma of the Royal College of Physicians of London and Royal College of Surgeons of England. Particulars from Mr. F. G. Hallett, Secretary of the Conjoint Board, 8-11 Queen Square, Bloomsbury, London, W.C.

Society of Apothecaries' Diploma.—Apply to Mr. Frank Haydon, L.R.C.P., Water Lane, Blackfriars, London, E.C.

Irish Double Qualification.—Conjoint diploma of the Royal College of Physicians in Ireland and the Royal College of Surgeons. Particulars from Mr. Alfred Miller, Royal College of Surgeons, Stephen's Green, Dublin.

Dublin Apothecaries' Diploma.—The Registrar, Apothecaries' Hall, 40 Mary Street, Dublin.

Scottish Triple Qualification.—Granted by the Royal Colleges of Physicians and Surgeons of Edinburgh with the Royal Faculty of Physicians and Surgeons, Glasgow. Secretaries: Mr. D. L. Eadie, 50 George Square, Edinburgh, and Mr. Walter Hurst, Faculty Hall, St. Vincent Street, Glasgow.

Medical Education

is obtainable at the Universities mentioned above and at other medical schools in Dublin, Edinburgh, Glasgow, and London. The following medical schools in London are constituents of the London University:

Charing Cross Hospital Medical College, Chandos Street, W.C. Dean, Dr. W. J. Fenton.
Guy's Hospital, London Bridge, S.E. Dean, Mr. L. Bromley.
King's College Hospital Medical School, Denmark Hill, S.E. Dean, Dr. H. Willoughby Lyle, F.R.C.S.
London Hospital Medical College, Turner Street, Mile End, E. Dean, Professor W. Wright.
London (Royal Free Hospital) School of Medicine for Women, 8 Hunter Street, W.C. Dean, Miss L. B. Aldrich-Blake, M.D.
Middlesex Hospital, Cleveland Street, W. Dean, Dr. H. Campbell Thomson.
St. Bartholomew's Hospital and College, West Smithfield, E.C. Dean, Dr. T. W. Shore.
St. George's Hospital, Hyde Park Corner, S.W. Dean, Dr. E. Salusbury Trevor.
St. Mary's Hospital, Cambridge Place, Paddington, W. Dean, Sir John Broadbent, Bart.
St. Thomas's Hospital Medical School, Albert Embankment, S.E. Dean, Dr. Edward Stainer.
University College Faculty of Medical Sciences, Gower Street, W.C. Dean, Mr. J. Herbert Parsons, F.R.C.S.
Westminster Hospital Medical School, Broad Sanctuary. Dean, Dr. S. A. Kinnier Wilson.

Dentistry.

The method of obtaining a registrable qualification in dentistry resembles that required for medicine and surgery. Both professions are controlled by the General Medical Council. The training of the dental student extends over a period of four years and may be entirely carried out at a recognised dental school, or it may be acquired by part training at a dental school for two or three years and an apprenticeship of two years to a qualified dentist. The curriculum of the Royal College of Surgeons of England (Queen's Square, London, W.C.), which is as follows, may be taken as an average of the requirements:

First Course.—Theoretical and practical chemistry and physics: 180 hours' lectures and practical work in chemistry and 120 hours' lectures and practical work in physics. Pass the *Preliminary Science examination* in chemistry and physics, the same as that for L.R.C.P. and M.R.C.S.

Second Course.—Two years' instruction in mechanical dentistry; lectures on dental metallurgy, with a practical course: lectures on dental mechanics, with practical work, including the manufacture and adjustment of six dentures and six crowns. Pass the *First Professional examination*—(I.) Mechanical dentistry; (II.) dental metallurgy.

Third Course.—Lectures on dental anatomy and physiology, dental histology, dental surgery, with practical dental surgery; surgery of the mouth, dental bacteriology, dental materia medica, and practical instruction in anæsthetics—these at a dental school and hospital; and the following in a medical school: Lectures on anatomy, physiology, with practical physiology; surgery and medicine. Dissections for twelve months. Practice or surgery and clinical lectures on surgery in a hospital for twelve months. Pass the *Second Professional examination*—(I.) General anatomy and physiology, general pathology and surgery; (II.) dental anatomy and physiology, dental pathology and surgery, and practical dental surgery. Before the final subjects are entered for, the candidate must have completed the four-years' curriculum and be twenty-one years old.

Similar conditions apply to the qualifications of the following Colleges:

Royal College of Surgeons, Edinburgh.—Clerk, Mr. D. L. Eadie, 50 George Square, Edinburgh.

Royal Faculty of Physicians and Surgeons, Glasgow.—Address Mr. Walter Hurst, 242 St. Vincent Street, Glasgow.

Royal College of Surgeons in Ireland, Stephen's Green, Dublin.

Degrees in dentistry are granted by the Universities of Birmingham, Bristol, Dublin, Durham, Leeds, Liverpool, London, Manchester, and Sheffield. The medical schools mentioned above under the section dealing with medicine (with the exception of Charing Cross) have dental colleges attached. There are in addition the following dental schools:

Dublin.—School of Dentistry, Lincoln Place. Dean, Mr. Geo. Sheppard.

Edinburgh.—Dental Hospital and School, 31 Chambers Street. Dean, Mr. W. Guy, 11 Wemyss Place.

Glasgow.—Dental Hospital and School, 158 Renfrew Street and 15 Dalhousie Street. Dean, Mr. W. D. Anderson.

London.—National Dental Hospital, Great Portland Street, W. Dean, Mr. Sidney Spokes.—Royal Dental Hospital, Leicester Square, W.C. Dean, Mr. W. H. Dolamore.

Veterinary Surgery.

The Royal College of Veterinary Surgeons, Red Lion Square, London, W.C., is empowered to grant licences to practise and to exercise powers similar to those exercised in the case of medicine by the General Medical Council, except that the Royal College, unlike the G.M.C., conducts the Professional examinations. Before commencing study at one of the affiliated Colleges, the student must pass a recognised Preliminary examination. Then after registration as a student he is ready to take up the curriculum for M.R.C.V.S., which lasts four years, with an examination at the end of each academic year. Particulars of the four Professional examinations may be obtained from Mr. Fred. Bullock, Secretary, Royal College of Veterinary Surgeons, 10 Red Lion Square, London, W.C. The subjects of the curriculum are substantially those of the Professional examinations, viz.:

First Professional Examination.—Anatomy of the domesticated animals—bones, ligaments, joints; chemistry and elementary physics; elementary zoology and botany.

Second Professional Examination.—Anatomy of the domesticated animals; histology and physiology; stable management, the manipulation of animals, and the principles of shoeing.

Third Professional Examination.—Pathology, bacteriology, and protozoology; materia medica, pharmacy, and toxicology; veterinary hygiene and dietetics.

Fourth Professional Examination.—Principles and practice of veterinary medicine and clinical medicine; principles and practice of veterinary surgery, clinical surgery, obstetrics, and shoeing; meat inspection.

Education in veterinary surgery is offered at the following Colleges, each of which is affiliated to the Royal College of Veterinary Surgeons:

Dublin.—*Royal Veterinary College of Ireland* (under the Department of Agriculture and Technical Instruction for Ireland), Pembroke and Shelbourne Roads, Balls Bridge. Principal, Professor A. E. Mettam. Registrar, Mr. G. E. Haines.

Edinburgh.—*Royal (Dick) Veterinary College.* Principal, Professor O. Charnock Bradley.

Glasgow.—*Glasgow Veterinary College,* Buccleuch Street, Garnethill. Principal, Professor J. McCall.

London.—*Royal Veterinary College,* Great College Street, Camden Town, N.W. Principal and Dean, Professor Sir John McFadyean, M.B., M.R.C.V.S., etc.

Degrees in veterinary science are also granted by the Universities of Bristol, Edinburgh, Glasgow, Liverpool, London, and Manchester.

Science.

The importance of chemistry as a science is being more recognised as a result of the war and the severance of relations with Germany, to which country our nation had previously been content to leave several large tracts of scientific knowledge. This is now altered, and the call will be for more chemists who can assist by their knowledge in the industries of the country and conduct the research work needed for new processes. There is legal restriction on the practice of professional or analytical chemistry, but indirectly it will be found that regulations affecting the appointment of public analysts, for example, make it necessary to hold a diploma in chemistry from a recognised body.

The outstanding chemical qualification in this country is that provided by the Institute of Chemistry, 30 Russell Square, London, W.C.—viz., Fellow of the Instituto of Chemistry (F.I.C.)—which is now granted solely as the result of study and examination, as briefly explained in the following paragraphs:

Studentship.—Candidates must be at least seventeen years of age and have passed an approved Preliminary examination, and at the time of application be training at a recognised institution or under a Fellow of the Institute. Annual registration-fee, 5*s.*

Intermediate Examination.—The course of study in chemistry, physics, mathematics, and a fourth subject extends to three years, or one less if a candidate is a pupil with a F.I.C. Examination-fee, 5*l.* 5*s.*

Final Examination.—Includes a general knowledge of chemistry and special knowledge in one branch, besides ability to translate French and German technical literature into English. See the Institute's particulars. Examination-fee, 5*l.* 5*s.*

Further examinations are also provided—*e.g.*, (1) Food and drugs to qualify for public analyst, and (2) biological chemistry. Fee, 5*l.* 5*s.* in each case.

Degrees in science are given by all the Universities. B.Sc. is, for example, given to those who have put in a curriculum of three years at the University and passed the Professional examinations provided. These are held yearly, the subjects being according to the department of knowledge in which the degree is required. The particulars are given in the University prospectuses. The University of London grants its degree in science *sine curriculo,* as well as to internal students. In this University, as well as in all others, the University Matriculation examination or its equivalent has to be passed. In London the other arrangements are as follows:

A year after passing the Matriculation examination a student may enter for the *Intermediate examination* (fee, 5*l.*), taking four subjects from the following, including at least one from the first three: Pure mathematics, applied mathematics, experimental physics, chemistry, botany, zoology, geology, military science, and general physiology (internal students). The *Final examination* (fee, 5*l.*) may be taken one year after passing the Intermediate, but three years must elapse between the Matriculation and Final examinations. Three out of thirteen prescribed subjects are to be taken in the Pass Final examination; Honours candidates take only one subject (of a much higher standard) along with an appropriate subsidiary subject.

The London degree is still the most popular, but those who have the opportunity of attending the Science classes of any other University should get their own University's Science degree.

Schools of Science exist in all large towns, those in cities which are classed as Local Colleges by the Board of Education offering the most complete educational facilities. In London the chief institutions are:

Imperial College of Science and Technology, South Kensington, S.W.
Battersea Polytechnic, Battersea Park Road, S.W.
City of London College, White Street, Moorfields, E.C.
East London College, Mile End Road, E.
King's College, Strand, W.C.
Northern Polytechnic Institute, Holloway, N.
Sir John Cass Technical Institute, Jewry Street, Aldgate, E.C.
South-Western Polytechnic, Manresa Road, Chelsea, S.W.
Technical College, Leonard Street, Finsbury, E.C.
University College, Gower Street, W.C.
West Ham Technical Institute, Romford Road, E.

Information regarding the courses of study can be obtained by addressing the Secretaries of the various institutions referred to above.

Optical Diplomas.

This section has hitherto been devoted solely to the diplomas and educational facilities obtainable for ophthalmic opticians. During the past year, however, a new optical department has been established in connection with the Imperial College of Science and Technology under the direction of Professor F. J. Cheshire. The work of this institution should do much to provide a sound basis for the renaissance of the optical-instrument industry in this country and render us independent of Germany in future. Since the war began much has been done to help in the production of the different kinds of optical glass and otherwise to place the industry on a firm foundation.

The interests of chemists are chiefly centred in ophthalmic optics, and a great number have obtained the optical diplomas granted by the following bodies:

The Spectacle-makers' Company, 11 Temple House, Temple Avenue, London, E.C. Write to the Acting Clerk.

The British Optical Association, Clifford's Inn, London, E.C. Secretary, Mr. J. H. Sutcliffe.

The prospectuses of these institutions can be obtained on application.

Optical Instruction.

The principal schools where instruction in ophthalmic optics can be obtained are:

The British Optical Institute Ltd., Fern Lodge, 20A Grove Road, Brixton, London, S.W. Principal, Dr. Max Coque, B.Sc.

The College of Optics, 12 Renfield Street, Glasgow. Principal, Mr. T. S. Baird.

Glasgow School of Optics, 180 West Regent Street.

Mr. A. E. Grey, 13 Spencer Street, Clerkenwell, London, E.C.

Mr. Lionel Laurance, Institute of Optics, Temple House, Temple Avenue, London, E.C.

The Northampton Polytechnic Institute, St. John Street, Clerkenwell, London, E.C.

Mr. J. G. Wallbridge, School of Optics, 227 Kensington, Liverpool.

Full information regarding time-tables and fees is obtainable on application.

The Editor will be pleased at any time to supplement the information on educational matters dealt with in this issue, either by post or through the columns of The Chemist and Druggist.

Insurance Act Dispensing.

A Record of matters concerning Chemists' interests in the National Health Insurance Acts.

Reports from Local Centres.

ENGLAND.

Bury (Lancs).—At the annual meeting of the Insurance Committee on August 7, it was stated that although chemists in the area are having to "carry on" with depleted staffs, it is very satisfactory to note that, following interviews with the Military Representative, at which the dispensing requirements of the whole civil population were taken into consideration, no chemists' shops (except one, which was a branch, and was closed voluntarily) have been closed. In August last the Committee received their advice of credit in respect of the Medical Benefit Fund for the year 1915, and were enabled to effect a settlement with the doctors and chemists, cheques for the balances due (1,317*l.* 17*s.* 1*d.*) being issued on September 6. The Commissioners having agreed to make a special war allowance to chemists for the years 1916 and 1917, a sum of 66*l.* 9*s.* 1*d.* in respect of 1916 was distributed to them on April 4. The total sum paid to chemists in respect of the supply and dispensing of medicines and appliances during 1916 amounted to 1,197*l.* 3*s.* 5*d.*

SCOTLAND.

Glasgow.—At the meeting of the Burgh Pharmaceutical Committee on August 6, the report on the Pricing Bureau abstracts for January to May mentioned a marked diminu-

tion in the prescribing of proprietary medicines since the issue of the cautionary letter early in the year, but many non-Tariff appliances, and also "stock" orders in excess of the allowable quantities, were still being supplied. Reference was also made to the labour and expense caused by unsigned prescriptions, and the number of scripts containing insufficient particulars, which could not be priced until details had been supplied. Over-prescribing on the part of certain practitioners was also a cause of comment. The Sub-Committee dealing with military service had associated with them Messrs. John Murchie and H. P. Arthur (representing the Glasgow and West of Scotland Chemists' Association) and Mr. Jones, the Clerk to the Insurance Committee. Their report stated that agreement had been arrived at with the Military Representative as to the enlistment of additional chemists from the area. Both reports were adopted. The Secretary submitted a report on the prescribing for 1916, based on the statistics furnished by the Central Checking Bureau. While the average figure per insured person for the area had worked out at 15.2*d.*, the lowest yet touched in Glasgow, it was shown that a large number of the practitioners might be considered extravagant when their figures were compared with those of the aggregate number on the Burgh panel list. The Secretary was instructed to make representations to the Panel Committee under Regulation 40. It was agreed that the practitioners whose average "frequency" exceeded 2.0, whose average value per form exceeded 10*d.*, whose average cost per person exceeded 1*s.* 6*d.*, or whose average cost of "stock" orders had exceeded 0.5*d.*, should be considered to have exceeded "what may reasonably be necessary," and tables were prepared showing these. Fifteen practitioners had excessive figures on all four counts, fifty-six on three, sixty-six on two, and fifty-two showed stock orders in excess of the figure 0.5*d.* per person.

Notes.

As the result of an inquiry, held on May 18, into complaints made against Dr. G. V. H. Fairhall, M.R.C.S., L.R.C.P., of Ladywell, S.E. (*C. & D.*, May 26, p. 40), the Insurance Commissioners have decided to remove his name from the panel as from August 27. The Committee of Inquiry consisted of Mr. J. Fischer Williams, barrister-at-law, Dr. Arthur Lyndon, and Dr. E. A. Starling The Committee, after hearing evidence, found that Dr. Fairhall had broken his agreement with the Insurance Committee by negligence in his treatment of insured persons and by failure to keep prescribed records of his attendance, and that he habitually disregarded communications from the Insurance Committee.

Sanatorium Benefit.—A deputation from the London Insurance Committee waited on Mr. Hayes Fisher (President of the Local Government Board) on August 14 to lay before him the unsatisfactory condition of insured persons in London in regard to sanatorium treatment. The views of the deputation were voiced by Mr. Kingsley Wood, L.C.C. (Chairman of the Insurance Committee), Mrs. C. L. Booth (Chairman of the Sanatorium Committee), and Mr. Rockliff (Chairman of the Finance Committee); and in reply Mr. Fisher said the whole subject required to be reviewed, but if this could not now be done, at any rate the tuberculosis service for London should be investigated.

Health Legislation.—Sir E. Cornwall, Chairman of the National Health Insurance Joint Committee, on August 9 received a deputation from the National Association of Insurance Committees, which urged the importance of the formation of a Ministry of Health, improved provision for maternity and infant welfare under the existing Insurance Committees, and further sanatorium accommodation. Sir Edwin, in reply, expressed his entire agreement with the aims of the deputation. The working of the Insurance Acts had shown the need not only for further legislation, but also for the better administration of the existing law by those charged with its execution. The establishment of a Ministry of Health necessarily presented certain difficulties, but he believed that with the good will and disinterested efforts of all concerned the problems could be solved. Improved provision for maternity and child welfare under the present Health Insurance organisations is a matter of most vital importance to the nation.

Welsh Pricing Bureau.—The second report on the work of the Pricing Establishment (Wales) has been issued, dealing mainly with the work carried out in 1916. It states that the re-pricing on "old Tariff" basis and the war allowance of 0.3*d.* per prescription had considerably increased the labour of the Bureau, but arrears had been steadily disposed of and the work is now brought up to date; this result being due to the increased efficiency of the members of the staff, which consists of sixteen lady clerks working under the supervision of Mr. A. H. M. Purse, chemist and druggist. The Pharmaceutical Society's Checking Bureau examines the accounts of twelve out of the fifteen areas covered by the report, and the number of errors discovered and the amount involved are small. Local Pharmacopœias are used in seven areas, and the uniform adoption of one Formulary by the whole of the fifteen Committees is advocated. Complaint is made of the delay and labour caused by chemists ignoring the instructions for sending in accounts, and the use of one standard pattern prescription-form for all the areas is recommended. The prescriptions examined during the year numbered 1,247,403; the cost of ingredients was 18,842*l.* 13*s.* 6*d.*, an average of 3.62*d.*, and the dispensing-fees totalled 12,400*l.* 11*s.* 5*d.*, averaging 2.38*d.* per prescription. Full details are given in a series of tables, and the report has appended to it a proposed scheme for the centralisation of the work of investigating prescriptions on behalf of Panel Committees under Article 9 of the 1916 Regulations.

Economy in the Use of Glycerin and Sugar.—The Insurance Commissioners have issued a circular to medical men regarding the need for economy in the use of glycerin and sugar, which takes the matter further than the circular issued in January. The position, it is stated, has become more stringent since then, and the action of the General Medical Council has altered it further. The following statement is made regarding the supply of glycerin and sugar:

Glycerin for medicinal purposes is no longer being manufactured. For such glycerin, therefore, as is required for the treatment of disease, the country must probably depend, until after the end of the war, entirely on existing stocks. These, it is believed, would suffice to provide what is necessary. But if they are drawn upon unnecessarily, there is a danger that at a later stage glycerin will not be available for those purposes for which it is really required.

Of sugar, on the other hand, a proportion of whatever supply is generally available will continue to be available for medicinal use. Medical practitioners, however, will hardly need to be reminded that, while sugar is of little use medicinally except as an adjuvant or excipient, it is of the greatest value as a food. It, therefore, ought not to be used for medicines unnecessarily.

The action of the General Medical Council is then dealt with, and suggestions to practitioners are put forward regarding the conservation of supplies of glycerin and sugar still available for medicinal purposes. This is dealt with under three heads: (*a*) As to the use of glycerin and sugar (or syrup) as such; (*b*) as to the use of preparations containing glycerin and sugar which were formerly included in the British Pharmacopœia, but have now ceased to be official; and (*c*) as to the preparations containing glycerin and sugar which are still official in the British Pharmacopœia. In regard to (*a*) the suggestions for economy made in January are repeated, and there is given in addition the London Pharmaceutical Committee's formula for mist. trag. chlorof., but unfortunately the Commissioners, whilst giving the formula, do not give a name to the preparation. The following is what is said under the headings (*b*) and (*c*):

(*b*) After exhaustion of existing stocks many of these preparations will cease to be available, and practitioners who order them may subject their patients to inconvenience and annoyance through the inability of the chemist to dispense the preparations. Practitioners should, therefore, in treating cases for which they would hitherto have employed any of these preparations, prescribe such substitutes as appear to them suitable, not containing glycerin or sugar as the case may be. If, for example, a practitioner is treating a case of a kind for which he has usually found tinct. rhei co. to be beneficial, he may find it convenient either to prescribe a formula approximating as closely as possible to that of the former tinct. rhei co. B.P., but without glycerin (*e.g.*, tinct. rhei co. *sine glycerino*), or to prescribe the essential ingredients of tinct. rhei co. in some suitable alternative form. It is possible that in the case of some frequently used preparations similar compounds not containing glycerin or sugar may be put on the market by pharmacists, and one or other of these compounds may be found to serve the same therapeutic purpose. The Committee do not think it necessary to attempt to suggest alternative formulæ for all the preparations in question.

Note.—The above considerations are, of course, equally applicable to the non-official preparations, both proprietary and non-proprietary, containing glycerin or sugar which have not been included in the British Pharmacopœia.

(*c*) It is hoped that the existing stocks of medicinal glycerin, and the supplies of sugar which continue to be available for medicinal purposes, may suffice for the continued manufacture of all the glycerin and sugar containing articles which remain official. This, however, can only be the case if practitioners refrain from ordering them except for those patients for whom they are really required. Wherever it is possible, without disadvantage to the patient, the essential ingredients of these preparations should be prescribed in other combinations not containing glycerin or sugar.

An appendix gives lists of the preparations omitted from the British Pharmacopœia and those which are retained, although containing syrup or glycerin.

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Trade Report.

The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers receive the goods into stock, after which much expense may be incurred in garbling and the like. Qualities of chemicals, drugs, oils, and many other commodities vary greatly, and higher prices than those here quoted are charged for selected qualities of natural products even in bulk quantities. As a result of the War wholesale houses have had to contend with many fresh difficulties, some of which have involved greatly increased expenses. Shortage of labour with higher wages (equal to almost double pre-war rates) has a direct effect upon values of goods, as also have railway carriage, freights, cartage, and other charges. The foregoing and other incidental outlays prevent retail buyers purchasing at the market prices quoted here.

42 Cannon Street, E.C. 4, August 16, 5.30 p.m.

Business has been fully resumed this week, but there is a lack of animation in the markets generally, in spite of which prices are well maintained, principally owing to the growing spot scarcity. Arrivals continue spasmodic, but it is interesting to note that stocks of sarsaparilla, Sumatra and Siam benzoin, ipecacuanha, calumba, and Cape aloes are being replenished, several of these products coming to an almost bare market. Freights from Japan are to be considerably advanced, so that imports of certain lines from that source will fall off. Changes in value include a further advance in menthol and oil of Japan mint on spot, while American peppermint is also dearer on strong advices from the other side. Bergamot oil is easier, lemon and orange being flat; cassia is firmer, distilled lime oil is easier, and French thyme scarce. B.P. almond oil is 1*d.* dearer. Among drugs Cape aloes is scarce, but further supplies are close at hand. Higher prices are asked for Matto Grosso ipecac., but next week's sale will "fix" prices. Calumba still sells at high prices. The chemical group shows few changes. Bromides are steady at previous low prices, and amidopyrin continues very scarce.

Higher	Firmer	Easier
Almond oil, B.P.	Balsam Peru	Benzoates
Cassia oil	Juniper-berries	Bergamot oil
Castor oil (Cal. sec.)	Lemongrass oil	Bleaching-powder
Isinglass	Peppermint oil (Amer.)	Citric acid
Menthol	Peppers	Ginger (Cochin)
Shellac	Tamarinds	Lime oil (W.I.)
Turpentine		Tartaric acid

The drug-auctions will be held next Thursday, August 23.

Acetanilide.—In view of the high price of glacial acetic acid, the present values of from 2*s.* 10*d.* to 2*s.* 11*d.* should be worth buyers' attention.

Agar-agar.—At auction on Tuesday 15 bales Japanese (in prize) sold in at 1*s.* 10*d.* per lb. for No. 2 quality; privately 1*s.* 11*d.* is quoted for No. 2 and 2*s.* to 2*s.* 1*d.* for No. 1, while prime in small lots has realised 2*s.* 2*d.*

Almond Oil—English pressers have advanced the price of ol. amygdalæ B.P. by 1*d.* per lb., and now quote 2*s.* 9*d.* in cwt. lots, and smaller quantities at 2*s.* 10*d.*

Aloes.—Cape on the spot are extremely scarce, both in first and second hands, but further supplies are close at hand. The destinations, values, and the quantities exported from the Union of South Africa during 1915 and 1916 were as follows:

To	1915		1916	
	Quantity	Value	Quantity	Value
	lb.	£	lb.	£
United Kingdom	494,629	3,745	832,336	7,970
Hong Kong ...	—	—	33,094	250
France	—	—	6,264	67
Sweden	—	—	11,699	123
Japan	17,896	112	32,014	249
United States ...	131,414	922	71,522	646
—	643,939	4,779	986,939	9,305

Ambergris meets with a slow sale, the value of fine grey being 80*s.* per oz.

Amidopyrin is still very scarce on the spot, and to come forward from 65*s.* to 70*s.* net is quoted.

Ammonia Sulphate.—There is no export price available. Home-trade prices (fixed) are: August-September 15*l.* 7*s.* 6*d.*, October-December 15*l.* 15*s.*, January-May 16*l.* 7*s.* 6*d.*, delivered net cash, or 10*s.* less at works.

Anise Oil, Star, is quiet at 3*s.* 7*d.* per lb. for "Red Ship" brand on the spot.

Arsenic.—There is a lack of offers and the price is nominal at 100*s.* on the spot, and in Liverpool from 95*s.* to 100*s.* is quoted.

Aspirin.—Prices remain at from 14*s.* 6*d.* to 15*s.* per lb., but an improvement is looked for when the present cheap contracts are run off, especially in view of the extremely high price of glacial acetic acid.

Benzoates.—There are sellers of benzoic acid of British make at 23*s.*, and for benzoate of soda the value is about 22*s.* per lb.

Benzoin.—The arrivals in the Crutched Friars warehouse comprise 100 cases Sumatra and 25 cases Siam

Bergamot Oil is in easier tendency at primary sources, shippers offering at 20*s.* 6*d.* to 21*s.* c.i.f. for 38-per-cent. esters, and 21*s.* 6*d.* upwards on the spot.

Bleaching-powder has been rather more plentiful of late, and this has eased the price somewhat in dealers' hands, who quote 24*l.* on the spot. Makers, of course, restrict their sales to regular customers are considerably less than the foregoing.

Bromides.—Makers report a fair trade demand on the basis of 6*s.* 6*d.* for potash crystals and 6*s.* 3*d.* for granular: ammon. is 4*s.*, and soda 2*s.* 6*d.* to 2*s.* 8*d.* net. Present prices are regarded as very low, and buyers should not hesitate in stocking their requirements, as it is uncertain how long they will remain in force.

Buchu.—The destinations, values, and the quantities exported from the Union of South Africa during 1915 and 1916 were as follows:

	1915		1916	
	lb.	£	lb.	£
United Kingdom ...	101,305	14,627	41,950	5,601
New Zealand... ...	—	—	312	36
Japan...	—	—	210	38
United States ...	55,756	9,140	88,322	16,010
	157,061	23,767	130,794	21,685

Calumba.—A parcel of 165 bags has arrived on practically a bare market; sales of washed chips have been made at 90*s.*

Camphor Oil.—White essential Japanese is quoted at 87*s.* 6*d.* per cwt. on the spot.

Caraway Oil is scarce at from 20*s.* to 21*s.* per lb. for B.P. quality as to holder.

Cassia Oil remains firm on the spot at 5*s.*, and the same price is quoted on "c.i.f." terms for 80 to 85 per cent. c.a.

Castor Oil.—Small sales of good seconds Calcutta have been made ex-store Liverpool at up to 8⅞*d.* per lb., and 9*d.* is now nominal.

Cinnamon.—At auction 50 bales Ceylon sold without reserve on account of whom it may concern at 1*s.* 7*d.* for firsts.

Citric Acid is easier at from 3*s.* 3*d.* to 3*s.* 4*d.* per lb. on the spot; rather larger arrivals have taken place, and the demand is distinctly quiet.

Clove Oil varies in price from 9*s.* 6*d.* to 10*s.* 3*d.* per lb. according to distiller.

Cloves.—Small spot sales of fair Zanzibar have been made at 1*s.* 3½*d.*, but subsequently the value was 1*s.* 3¼*d.* to 1*s.* 3½*d.*

Cocaine.—Supplies are by no means plentiful on the spot, but limited quantities are still available at a slight advance on previous rates. The export inquiry is large, but cannot be filled.

Copper Sulphate.—Export licences have been granted rather more freely of late, and prices have hardened somewhat at about 62*l.* per ton f.o.b. Liverpool.

Cream of Tartar is very scarce and prices nominal; demand is very light.

Ergot is unaltered at 2*s.* 2*d.* for Russian on spot.

Galls.—Chinese on the spot offer at 130*s.* per cwt., with sales at about this figure.

Ginger.—At auction 100 bags limed washed rough Cochin sold at 65*s.*, being easier; brown rough Calicut was bought in at 72*s.* Privately, common to good common Jamaica is 87*s.* 6*d.* to 92*s.* 6*d.*, and medium to good 95*s.* to 100*s.*

Ipecacuanha.—Holders of good Matto Grosso are asking 10*s.* 6*d.*, and a bid of 10*s.* has been refused. Cartagena is still 9*s.* 9*d.* The arrivals in the drug warehouse comprise 20 bales Matto Grosso and 3 cases Cartagena.

Isinglass.—The small supplies offered at auction were practically all sold at much higher prices.

Juniper-berries have been in good general demand on the spot, values being from 34*s.* to 35*s.* per cwt.

Lemongrass Oil is dearer at from 4¾*d.* to 5*d.* per oz. on the spot.

Lemon Oil met with a small sale on the spot at from 4*s.* to 4*s.* 3*d.* per lb., the arrival value being 3*s.* 9*d.* c.i.f.

Lime-juice.—Although large stocks exist on the spot, good Jamaica is firmly held and 3*s.* per gal. is wanted.

Lime Oil.—Distilled West Indian is easier at 7*s.* 6*d.* per lb. on the spot.

Linseed Oil is firm, with spot sales of naked at 56*l.* 10*s.* net.

Liquorice-root.—Whole decorticated is very scarce, while the value of cut is from 105*s.* to 110*s.*; common natural rough is about 57*s.* 6*d.*

Menthol shows a further advance on the spot, sales having been made up to 13*s.*, sellers now asking 13*s.* 3*d.* for Kobayashi-Suzuki.

Milk-sugar.—Although prohibitive prices are being asked for Dutch, other good makes are being sold at 230*s.*, while American is also obtainable at this figure.

Mint Oil.—Japanese dementholised is held at 3*s.* 6*d.* on the spot for Kobayashi-Suzuki.

Musk is in fair trade demand, the value of first-pile thin-skin blue Tonquin pod being 75*s.* per oz. Assam grain is worth about 67*s.*

Orange-peel.—So-called Maltese strip is offered at from 2*s.* to 2*s.* 3*d.* per lb. as to quality, and Spanish quarters at 1*s.*, at which sales have been made.

Peppermint Oil.—American is firmer, with nothing on the spot below 14*s.* for finest brands. There is no improvement in the home demand, the advance being due to the American growers, who are said to be "playing the usual waiting game." On this side it is suggested that the total absence of demand is bound to affect the situation sooner or later. H.G.H. is 18*s.* 6*d.* London terms.

Peppers are firmer on spot, with more inquiry. Fair Singapore black is 11*d.*, Tellicherry 1*s.*, and Alleppy 11½*d.*; white Singapore is 1*s.* 0¾*d.*, and Muntok 1*s.* 1*d.* per lb.

Phenazone.—It is reported that further licences to export from France are being withheld, and if this should prove to be the case, prices are likely to harden when spot parcels are cleared; 55*s.* net is still quoted.

Quillaia is steady at 42*l.* per ton ex store Liverpool, the spot value being about 46*s.*

Quinine is practically a closed market from a dealer's point of view, there being little "free" quinine on offer; values are from 2*s.* 10*d.* to 3*s.* for the usual brands of sulphate. Wholesale druggists appear to be fairly well stocked. Makers appear to be sold out up to October; meanwhile, their prices are unchanged, with only very limited quantities available.

Salicylates.—The cheaper offers made from the U.S.A. last week for salicylic acid have evidently been withdrawn, makers having experienced a difficulty with their plant, and prices are firmer on the other side; it seems doubtful whether October-December shipment could be imported below 7*s.*; for spot delivery from 7*s.* 3*d.* to 7*s.* 6*d.* in small lots is quoted. Soda salicylate is still firm and scarce, realising about 9*s.* 6*d.* to 10*s.* for August-September delivery.

Sarsaparilla.—The arrivals in Crutched Friars warehouse comprise 66 bales grey Jamaica and 10 bales red native Jamaica, part of which will no doubt be offered at next week's drug auction.

Shellac shows a considerable advance on the week, with fair spot sales of usual standard TN Orange at up to 246*s.* to 248*s.*, and fine Orange at 285*s.* to 295*s.*; blocky AC Garnet is 235*s.*

Tamarinds are scarce, the value of West Indian in bond being 40*s.* per cwt.

Tartaric Acid is easier at from 2*s.* 10½*d.* to 2*s.* 11*d.* per lb.

Thyme Oil.—Genuine French is worth about 7*s.* per lb. and is comparatively scarce on the spot, and the same applies to pure Spanish, which is also about 7*s.*

Turmeric is firm at from 50*s.* to 52*s.* 6*d.* per cwt. on the spot for Madras finger.

Turpentine is again dearer with a fair demand, American on spot closing at 57*s.* per cwt.

American Chemical and Drug Markets.

Some of the interesting features of the New York markets, up to July 30, are given below. Business has been quiet, chiefly owing to the exports embargo, in addition to which there are prohibitive freights and war-risk insurance rates, which all tend to dullness.

Acetphenetidin is easier, with sellers at $20.00 per lb.

Bay Rum has advanced in some quarters to $2.50 per gal., owing to the higher cost of alcohol.

Caffeine has been in improved demand, with supplies offering at $11.50 per lb.

Camphor.—Japanese refined is available at from 75c. to 80c. per lb.

Carbolic Acid has been in heavy export demand, but production is now on a large scale, and prices are easier at from 41c. to 42c. per lb. in drums.

Cascara Sagrada is in improved demand at from 12c. to 13c. per lb.

Copper Sulphate.—Large sales have recently been made to Italy: 98 to 99 per cent. large crystals offer at $9.37½ in carloads.

Gelatin.—Silver label is scarce at from $1.55 to $1.60 per lb.

Lycopodium has eased to $1.50 per lb. in bales.

Menthol is weaker, with spot offering at $2.85.

Peppermint Oil.—Little is available in bulk in New York below $3.00 per lb.

Quicksilver.—Californian is $115 per flask, and Mexican is offered at $100 ex warehouse New York.

Witch-hazel Ext.—Distillers have advanced prices to 80c. per gal. for U.S.P. grade in barrel lots f.o.b. New York.

German Drug-markets.

The following notes refer to the Hamburg and Berlin markets up to July 12:

Chamomiles.—The total crop in Hungary for 1917 is valued at about one-tenth of the average annual crop, as the weather has been very unfavourable. The quality is extraordinarily good, and prices vary between m.300 and m.360 per 100 kilos. German chamomiles have not been gathered, for lack of labour.

Ether.—Makers advanced their prices on June 21 by m.3, and now quote m.468.50 per 100 kilos. for ether s.g. 0.720, m.453.50 for 0.722, m.452.50 for 0.725, m.451.50 for 0.728, and m.450.50 for 0.733.

Oils (Essential).—Natural and artificial *Bitter-almond oil* has advanced considerably, as the inland stocks are very small and are expected to be cleared shortly. Genuine oil is m.70 to m.75 per kilo; genuine oil (s.a.p.) is m.76 to m.80 per kilo.; artificial oil (benzaldehyde), m.28 to m.30 per kilo.; and artificial oil, free from chlorine D.A.B.V., is m.44 to m.46 per kilo.

Peppers.—Only occasionally small quantities are offered, which always meet with a ready sale, though the prices are extraordinarily high. In first-hands Singapore white is from m.49 to m.51 per kilo., and *black* from m.46 to m.48 per kilo.

Potash Ferrocyanide (Crude).—Only a few makers can furnish supplies, and then in very small lots at high prices. Commercial crystals is quoted at from m.270 to m.275 and powdered from m.290 to m.295.

Quillaia.—The demand has been very active of late, and stocks have decreased considerably, further imports having been prohibited, in spite of much cheaper offers from neutrals. Prices vary between m.950 and m.975 per 100 kilos. for cut and m.1,000 per 100 kilos. for powdered. The latter is badly wanted for the war-soap industry.

Vanillin.—The demand remains very active, and prices have advanced steadily at to between m.450 and m.490 per kilo.

Zinc Oxide (Crude) has been commandeered for war-purposes and work in the factories has come to a standstill. Nominal prices are m.133.50 for "white seal," m.123.50 for "green seal," m.122.80 for "red seal," m.120.50 for "blue seal," m.119.50 for "grey seal" (light), and m.116.50 for "grey seal" (dark).

Japanese Glycerin.

Since the outbreak of war the production of glycerin in Japan has shown a remarkable development, the Government having granted pecuniary aid to manufacturers. There are now several large concerns in operation, one of which is producing about 300 tons monthly.

East African Beeswax.

In the course of the report on the gathering of beeswax in British East Africa, the U.S. Consul at Mombasa states that the industry is almost entirely in the hands of the natives, who obtain the product from wild hives. Very little scientific apiculture is practised, and that only by the European settlers in the highlands. Notwithstanding the present small production of honey and beeswax, the higher altitudes are peculiarly well adapted to apiculture. Clover is an abundant crop, and other flowers are plentiful. The Government is giving every encouragement to the industry, and the active interest of the settlers is being aroused to the opportunity. It is believed that the near future will witness a substantial development in the honey and beeswax industry. During the fiscal year ended March 31, 1915 (the last available detailed statistics), the total exportation of beeswax amounted to 1,563 cwt., of which Germany took

50 per cent., France 15 per cent., United Kingdom 14 per cent., Belgium 11 per cent., the remainder going to Italy and Holland. There is no export-duty on beeswax, but its export is prohibited at present to countries other than British.

The World's Hop Crops.

A well-known firm of London hop merchants has issued the following report: "The position should be of interest to consumers who are not well stocked, as present prices are much below the level expected. The acreage all over the world is rapidly decreasing. America has grubbed a large proportion. Belgium, both the parts in German hands and the portion still free, is, of course, heavily reduced in hop acreage. France has reduced considerably. England has grubbed heavily, and of what is left, not more than 50 per cent., as compared with the acreage of 1914, in individual hands may be picked, *i.e.*, a maximum of 18,330 acres, which will be further reduced as many growers have less than half of their 1914 acreage. With imports prohibited, and the expectation of an increase in brewing should the food position allow it, the very small surplus in this country will soon be used up. It might be well under these circumstances to consider the question of filling up stocks for future requirements. Present prices are very reasonable, and it appears certain that a severe shortage will occur sooner or later, according to how long the war lasts. . . So far the condition of the growing crop is excellent, but it is early days to predict the ultimate result, and growers will expect much higher prices than those at present ruling."

Arrivals of Chemicals, Drugs, etc.

The following arrivals have taken place at the Ports of London and Liverpool:

To London
(August 4 to 10).

Acetanilide, 16 brls.
Ammon. ichthosulph., 5 cs.
Antim. reg., 6 tons
Argol, 38 bgs.
Arsenic, 50 cs.
Barium sulph., 10 cks.
Benzoin, 100 cwt.
Bromides: potash, 14 cs. 12 pkgs.
Buchu-leaves, 14 bls.
Calumba, 165 bgs.
Cardamoms, 6 cs.
Cascarilla, 8 bls.
Casein, 1,940*l.*
Cassia-bark, 60 bgs.
Chloral hyd., 10 cs.
Cinchona, 792 bls. 37 cs.
Citric acid, 100 kgs.
Coca-leaves, 55 bls.
Cochineal, 8 bgs.
Cream of tartar, 36 cks. 40 kgs.
Dental goods, 511*l.*
Dyestuffs, unrated, 27 pkgs.; hematine cryst., 27 brls.; logwood, 35 tons; mimosa-bark, 479 bgs.; myrabolans, 4,140 bgs. 8,300 pkgs. 1,550 pockets; quercitron-bark, 14 tons; sumach, 16 bgs.; tanners' bark, 411 tons; wattle-bark, 1,897 tons
Formaldehyde, 54 brls.
Fullers' earth, 4 tons
Galls, 1,284*l.*
Gelatin, 3,157*l.*
Glycerin, dist., 1,608*l.*
Glycerophosph. calc., 1 cs.
Gums (cwt.): acacia, (ghatti), 739; chicle, 105; copal, 246; damar, 100; olibanum, 445; tragacanth, 470
Henbane, 14 bls.
Hexamine, 10 cs.
Hydroquinone, 23 kgs.
Kola, 2 bgs.
Lactic acid, 1 cs.
Liniment, 740 cs.
Lithol, 30 cs.
Lithopone, 1,740 cks. 508 brls.
Male-fern ext., 1 cby.
Methyl salicyl., 7 cs.
Milk-sugar, 30 brls.
Nuts and kernels (cwt.): arachis, 200; cashew, 200; copra, 91,165
Oils, essential, 1,114 cs. 64 dms.
Oils, fixed: arachis, 4,185 cs. 100 brls.; coconut, unref., 511 pps. 1,600 brls. 18,703 cs. 729 pkgs. 277 hds.; fish, 500 cs.; rape, 3,550 cs.; wood, 11,553*l.*
Ointment, 30*l.*
Opium, 145 chts.
Paraldehyde, 6 cs.
Paratoluolsulphamide, 1 cs.
Pepsin, 11 cs.
Perfumery, unrated, 2,318*l.*; water, 43*l.*; toilet-powder, 962*l.*
Petroleum jelly, 575 pkgs.
Potash carb., 197 cs.
Pyrogall. acid, 3 brls.
Quinine, 45,000 oz.
Rosin, 228 cks.
Sal acetos, 40 kgs.
Sal hepatica, 6 cs.
Seeds: anise, star, 5 cs.; cotton, 2,669 tons; dari, 2,600 bgs.; lin, 3,007 bgs.
Senna, 150 bls.
Soda bisulphite, 34 brls.
Soda nitrate, 8,591 bgs. 69 cks.
Soda salicyl., 5 cwt.
Soda sulphite, anhyd., 28 cks.
Spermaceti, 100 brls.
Squill, 25 bgs.
Starches (cwt.): corn, 2,238; dextrin, 200; farina, 6,607; potato flour, 7,216; other sorts, 1,140
Surgical dressings, 57 cs.; med. plasters, 31 cs.
Talc, 340*l.*; mineral white, 190*l.*
Tallow, unref., 28,496 cwt.
Tartaric acid, 12 cks.
Wax, bees', 38 pkgs.
Wax, paraffin, 1,760 cwt.
Wax, undescribed, 300 cs. 106 pkgs. 35 bls.
Wine-lees, 492 bgs.

To Liverpool
(August 7 to 11).

Acetic acid, 374 brls.
Albumen, 20 cs.
Argol, 378 bgs.
Calcium borate, 7,380 bgs.
Chemicals, unrated, 2 kgs. 21 pkgs. 3 cs.
Dental goods, 32*l.*; optical goods, 248*l.*; surg. instru., 527*l.*
Drugs, unrated, 1,210*l.* 2 brls. 137 cs. 106 pkgs. 62 bls.
Dyestuffs, unrated, 8 cks. 36 brls.; gambier, 167 bgs.; indigo, 120 chts.; logwood ext., 551 cks.; myrabolans, 21,500 pockets; sumach, 300 bgs.; tanning bark, 1,038 bgs.; tanning ext., 1,173 bxs. 1,205 cks. 827 bgs.
Iodine, 268 kgs.
Lactic acid, 123 brls.
Lead arsenate, 410 pkgs.
Nuts and kernels: babassu, 1,721 bgs.; copra, 5,415 bgs.; illipe, 524 bgs.; palm-kernels, 70 tons 3,983 bgs.; shea, 121 bgs.
Oils, fixed: arachis, 2,000 cs. 292 brls.; castor, 600 cs.; cottou, 1,000 brls.; palm, 812 cks.; rape, 1,000 cs.; wood, 250 brls.; rosin, 28 cks. 10 brls.
Saltpetre, 2,104 bgs. 33 cks.
Seeds (bgs.): cotton, 14,571; dari, 200; lin, 2,498; rape, 376; saffower, 19
Sodium metal, 128 cs.
Starches, 12,280 bxs. 390 sks.; farina, 500 bgs. 350 sks.
Sulphur, 321 cks.
Talc, 6,723 bgs. 12 cs.; talcum powder, 19 cs.
Tallow, 88 cks.
Vanilla, 1 cs.
Wax, bees', 224 bls. 60 ballots
Wax, carnauba, 530 bgs. 100 cs.
Wax, paraffin, 194 bgs. 330 cs.

Correspondence

Letters for this section should be written on one side of the paper only. The writer may adopt an assumed name for purposes of publication, but he must in all cases furnish his real name and address to the Editor.

Assistants in the East.

Sir,—Having spent several years out East in the chemist's business, both wholesale and retail, I am often asked, since my return home, by those desiring to go out there for information regarding salaries, etc. It might interest those of your readers who may be thinking of applying for a situation out in the Far East to have a few points, because unless a person is well up to the money values of the different places he is apt to accept an offer which appears to be "worth taking" without having taken into consideration the cost of living, etc. As a rule the wholesale firm who do the engaging either do not know the state of affairs or do not worry about them. Their motto is—get the man. Personally, I have had some experience in engaging chemists for the Far East, and have had their complaints and woes afterwards. I should say a fair salary for a young unmarried chemist would be, at least for India and Ceylon, Rs. 300 per month to start (that is, 20*l.* per month), with a yearly advance and passage both ways; Straits Settlement, Siam, and Hong-Kong, in fact, China proper, would be the same, but in dollars instead of rupees (a dollar is about 2*s.* 4*d.* sterling). For married men they would require more, about, say, Rs. 400 to 500 per month. The above figures, especially now and after the war, are not high, and out of these figures he will not be able to save a great deal, as all the "necessities of life" are soaring out East just as much as they are here in England, and will very likely take longer to come down to normal out East. With reference to travelling-expenses for commercial travellers, they run to about 2*l.* per day in ordinary circumstances. Yours faithfully,

"C.5." (94/38.)

Proprietaries in Insurance Prescriptions.

Sir,—I am obliged to "Art. 5" (*C. & D.*, July 14, p. 51) for pointing out the error in my letter; it would have been more accurate to have said that the disallowance of proprietary medicines under the National Insurance Act is not disapproved by the Commissioners. This is, I think, strictly true: the Commissioners condone what, in my view, is an injustice in regard to the non-prescription or non-supply of certain medicines to panel patients. Having disposed of this very minor criticism, perhaps "Art. 5" will now give your readers his opinion as to the main point of my letter, and state whether he approves of the treatment that discriminates against the poor panel patient, and in favour of the patient who may be quite well off, by refusing to the one and dosing the other with proprietary remedies.

Yours faithfully,
M. P. S. (91/19.)

Sir,—Is it not a fact that it is illegal to prohibit beforehand the use of any drug by a doctor for a panel patient? Thus, if a doctor prescribes, say, iodex or antiphlogistine, and refuses to alter the prescription, a chemist must supply, and if the chemist refuses to pay any attention to the Insurance Committee, but simply says, "Pay, or I will summon you," the Committee must pay, and recover from the doctor on the ground of extravagant prescribing. No case has at present been taken to the courts, but to my knowledge some little time since a case was attempted to be arranged in which a doctor was to prescribe some such article as I have referred to, and a chemist was to dispense it, and upon the Insurance Committee refusing payment for it an action was to be brought in the courts. This would doubtless bring the matter to a head and compel the Commissioners to accept the responsibility themselves. The present attitude of the Commissioners to every difficult question is illustrated by the chemist's agreement.

(1) They will tell you the agreement is strictly one between the individual chemist and his Insurance Committee.

(2) The Insurance Committee will refer you to the Commissioners, as they (the Committee) cannot agree to anything without the Commissioners' sanction.

(3) The Commissioners will at last admit that, although the agreement is one between the chemist and the Insurance Committee, yet it must be on the terms laid down by the

Commissioners—and yet the Commissioners have nothing to do with the agreement.

"Xrayser II." mentions the fact that doctors send patients to a particular specialist and then do the dispensing of the medicines ordered. They do worse than that in my district. They "nab" people's prescriptions and dispense them even if they have not themselves advised them to consult the particular specialist. Last Friday a doctor asked me to decipher two prescriptions for him, both bearing a West-end doctor's address, and being stamped by West-end chemists. The first was for sodium acid phosphate three times a day; the other was for "Urisol" three times a day. He could decipher neither, and was greatly astonished that Urisol was only a trade-name for urotropine. While such conduct continues it is hopeless to expect patent medicines to expire or counter-prescribing to cease.—Yours truly,

Another Single-handed Chemist. (81/34.)

Progressive Pharmacy Club.

Sir,—As the Chairman of the Progressive Pharmacy Club and not innocent of connection with the "Script," I naturally welcome "Xrayser II.'s" criticism and sympathy. I must admit there is a certain amount of vagueness in the expressions used, but I am afraid that the same charge can be applied to all the aims put forward by the various sections which see and feel the need of improvement. Individually we may have clearly defined ideas; those ideas, even in their present sporadic expression, are making for progress: witness the present movement for consulting the electorate before negotiations in the matter of the National Health Insurance dispensing—imperfect, perhaps, but being conducted on the right lines. It is out of the very vagueness of the ideas in pharmacy that the P.P.C. has arisen; vagueness which permeates the government and the governed. I have not the slightest hesitation in saying that in half an hour's talk with "Xrayser II." we could hammer out a line of action likely to lead to positive and beneficial results. He thinks clearly and writes with understanding and sympathy, and with 200 Xraysers, known to each other and exchanging ideas, backing the club, we should soon change the face of pharmacy. Primarily, the idea of the founders was that a club was a social necessity, and as the only men who had expressed the wish to bank on the idea were the men who had put their money into the progressive movement, it was felt the title would fit the situation. As a devotee of knowing what you want and wanting it badly, I would have preferred clear-cut definitions, but the first thing the founders had to find out was the extent to which we should get financial help and sympathy to help us to gather all the vagueness of pharmacy into concrete facts. We put our money down, we stood to lose it all, but I am glad to say that pharmacists have rallied splendidly to our side, and the future is dependent on whether we have sufficient energy and ability to justify their confidence. The clearly defined aims will come up for discussion, and we hope that the results of the discussions will, owing to their clarity, unite all pharmacists in pursuing the same end, which is not exactly "agin the Government," but, as "Xrayser II." has so often said, "Put it on a real democratic basis."

Herbert Skinner.

Subscribers' Symposium.

For interchange of opinion among "C. & D." readers, and brief notes on business and practical topics, especially new ideas.

Adhesive for Plush.

Material (103/24) asks for particulars of the adhesive employed in the millinery-trade for sticking plush or velvet together. It must be clean in use, and must not show any marks on the material. Perhaps some subscriber can supply the information.

Branch Managers' Salaries.

Increase (32/6) writes: "Can you or some of your readers say what the present maximum (average) weekly salary is for qualified managers of branch businesses? I hear that 5*l*. per week is asked for, and readily given. Is that enough for the responsibility and high price one has at present to pay for food, clothing, and lodging?"

Curling Horsehair.

"Your South African correspondent (*C. & D.*, August 11, p. 51) can curl horsehair by twisting into a rope, in the same way as a farmer does a hay-rope; but, instead of forming into a ball when made, the rope is slackened and the twisting continued until it becomes a knotty lump. It is then boiled in clean water to fix it."—*S. Suffern* (Belfast).

Legal Queries.

Most difficulties in trade law are explained in the legal section of "The Chemist and Druggist Diary," 1917, beginning on page 353.

Alpha (93/29).—The restrictions on the distribution of circulars are in force. The date was altered from March 10 to April 21, as explained in the *C. & D.*, April 14, p. 43.

J. B. (87/33).—An unqualified person cannot legally sell poisons in the absence of the qualified chemist who has charge of the pharmacy.

St. John (82/25).—You cannot control the sale of poisons at a shop if you are not there. Perhaps, however, we have misunderstood your inquiry.

S. G. M. (83/43).—We cannot say whether the wording of the "peptonised elixir" label makes a sufficient disclosure of the composition, as you do not tell us the formula you use.

Panel (91/22).—See *C. & D. Diary*, 1917, p. 374, where you will find answered all the questions you ask regarding Insurance dispensing. In regard to carrying on a branch-business without a qualified man in charge see p. 357 of the same *Diary*.

W. S. W. (91/1).—Entire Drugs are exempted from medicine-stamp duty when sold by chemists. The pure drugs referred to must not be mixed with any other ingredient. You can therefore sell pure acetylsalicylic acid as a headache-powder, and recommend it for the purpose on the labels and handbills.

F. N. (10/8).—Ext. Cocæ Liq. in Prescription.—Ext. cocæ liq. contains about 0.5 per cent. of cocaine, so that a prescription ordering a mixture of ext. cocæ liq. ʒj., aquam ad ℥iv., contains more than 0.1 per cent. of cocaine. Although the prescription is an old one, you cannot repeat it unless it is dated and signed by the medical practitioner, and is marked "Not to be repeated."

C. A. G. (98/12).—The Early-closing Order under the Defence of the Realm Act does not allow the sale of herb-beers after the closing-hour specified (8 p.m., except on Saturday, when it is 9 p.m.). The Order was printed in the *C. & D.*, October 28, 1916, p. 38. The exemption in regard to the sale of "medicine or medical or surgical appliances" is not confined to chemists.

A. T. (93/35).—(1) You will see from the *C. & D.*, August 4, p. 35, that 1-per-cent. cocaine solution can be supplied to unregistered dental practitioners until further notice. (2) Trade-marks are registered in different classes. Your better way would be to apply for registration in Class 3, which covers pharmaceutical preparations, otherwise you may find the owner of the mark in one class seeking to extend his use to other classes.

M. P. D. (97/11) occupies cellars which have windows on the level with the footpath. The tenant of the warehouse above the cellars constantly blocks up the windows by leaving articles on the footpath, in spite of repeated complaints by "M. P. D." How can "M. P. D." put an end to this inconvenience? ["M. P. D.'s" only remedy is to take legal proceedings against the tenant of the warehouse for an injunction to restrain him from continuing the nuisance.]

A. W. T. (47/29).—Registration of Business Name.—Section I. (i.) of the Registration of Business Names Act, 1916, states:

> Where the addition merely indicates that the business is carried on in succession to a former owner of the business, that addition shall not of itself render registration necessary.

The best plan will be to add the words "successor to" to the name on the sun-blind of your predecessor.

E. E. R. (38/1).—Insurance Prescriptions ordering cocaine are exempt from the requirement of the Cocaine Regulation as regards the name and address of the medical practitioner and the words "Not to be repeated." When the prescription is issued on the form provided by the Insurance Committee these particulars are not required. You will retain the prescription in the ordinary course of your business, and must enter the quantity of cocaine supplied in the cocaine register.

Miscellaneous Inquiries.

When samples are sent particulars should be supplied to us as to their origin, what they are, what they are used for and how. We do not undertake to analyse and report upon proprietary articles nor to publish supposed formulas for them.

Demos (102/1).—(1) Syr. Trifolii Compositus.—The following is from the "Canadian Formulary of Unofficial Preparations":

Fluid extract of red-clover blossoms	20	fl. dr.
Fluid extract of burdock ...	10	fl. dr.
Fluid extract of berberis aquifolium	10	fl. dr.
Fluid extract of stillingia ...	10	fl. dr.
Fluid extract of poke-root ...	10	fl. dr.
Fluid extract of cascara amarga	10	fl. dr.
Fluid extract of prickly-ash bark	2½	fl. dr.
Potassium iodide	320	gr.
Sugar	20	oz.
Water to	40	fl. oz.

Mix the fluid extracts with 12½ fl. oz. of water, let stand for a few hours, filter, then dissolve the sugar and potassium iodide in the filtrate, strain, and add sufficient water to make 40 fl. oz.

(2) The Manufacture of Matches of the kind you mention involves the use of white phosphorus, which may not now be used in this country for the purpose.

G. R. (102/22).—The sample of wood you send is derived from a species of *Machilus*, of the natural order *Lauraceæ*. It is used as a bandoline for the hair, the wood being soaked for a few minutes in water and then drawn over the hair. We think your customer is mistaken in supposing the wood is intended to restore grey hair, and we do not think it is likely to develop that property.

C. A. (102/7).—(1) Gripe-mixture for Children.—The following is from "Pharmaceutical Formulas":

Ol. anthemidis	♏iij.
Ol. carui	♏iv.
Ol. coriandri	♏iv.
Ol. limonis	♏iij.
Ol. menth. pip.	♏v.
Spt. rectificat.	ʒiss.
Glycerini	ʒij.
Aq. fervid. ad	ʒxvj.

Dissolve the oils in the spirit, and shake up with the glycerin and 12 oz. of warm water. Allow to stand for a day, and filter through a wet filter sprinkled with fullers' earth; wash the filter with cold water to 16 oz.

(2) Cough-mixture to suit your requirements:

Ac. benzoic.	gr. xxiv.
Chloroformi	♏lxxx.
Tinct. capsici	ʒvj.
Ess. amygd.	♏lxxx.
Ac. sulph. arom.	ʒvj.
Chlorodyni (sine ac. hydrocyan.)	ʒij.
Vin. ipecac.	ʒiv.
Syr. glucosi	℥x.
Sacch. ust.	q.s.
Syr. scillæ ad	℥xl.

Misce.

Dose: An adult, one teaspoonful; fourteen years, half a teaspoonful. To be well diluted with cold water and sipped slowly three times a day and at bedtime.

W. H. R. (84/28).—Rideal-Walker Test for Disinfectants.—A series of papers on this subject was given before the British Pharmaceutical Conference in 1910 and is printed in the "Year-book." Abstracts of the papers are printed in the *C. & D.*, July 30, 1910.

E. T. W. T. (98/14).—After-shave Lotion.—The following is a formula for the thick variety of cooling application used on the face after shaving:

Menthol	gr. v.
Powdered tragacanth	ʒss.
Rectified spirit	℥ss.
Glycerin	ʒij.
Water to	℥vj.

Dissolve the menthol in the spirit and add to the tragacanth contained in a dry bottle; add the water, shake; add the glycerin, again shake.

J. G. (99/9).—Horse Chestnuts.—It is the Ministry of Munitions (London, S.W.) which has asked that horse chestnuts be collected this year, a use having been found for them in an industrial process. Write to the Ministry for the address of the nearest collecting-station

P. & S. (131/27).—(1) Accumulator-acid.—The dilute sulphuric acid employed as an electrolyte in accumulators requires to be of sp. gr. 1.20 to 1.24 (about 30 per cent. of sulphuric acid). The acid should be free from metallic impurities. (2) Navel-ill.—This name is applied to septic inflammation of the navel-string of young foals, calves, and lambs. The treatment consists in opening the swelling with a knife and dressing the part with carbolised oil. Afterwards a pad made of a few thicknesses of flannel is wrung out of hot water and placed on the navel, a bandage round the body being then applied to keep the pad in place.

R. B. B. (97/72).—Rain-water stored for use in the garden and for domestic purposes can be kept from developing bad odours by treating it with lime, copper sulphate, or potassium permanganate. The addition of lime would render the water less useful for washing-purposes, and the price of potassium permanganate makes the use of this chemical at the present time prohibitive. A layer of liquid paraffin on the surface of the water would prevent the tank becoming a breeding-ground for mosquitoes and similar insects. In this case the water would need withdrawing by a tap in the lower part of the tank.

P. B. (100/63).—You will find particulars of the method of preparing "vanishing cream" in "Pharmaceutical Formulas," which you have purchased.

H. E. P. (47/37).—Shampoo-powder for Dry Use:

Borax	2 oz.
Oatmeal	25 oz.
Orris-root	2 oz.
Rice-flour	30 oz.
Sulphur	5 oz.
Wood-flour	2 oz.

Mix.

This is put up in packets of 40 gr. to 3 dr. The directions for use require the powder to be distributed in the hair and then brushed out thoroughly. Several other formulæ were given in the *C. & D.*, May 27, 1916, p. 48.

H. V. H. (102/33).—The Sugars of the cane and the beet are indistinguishable by physical tests if both the sugars are equally refined. The ash of beet contains only 0.24 per cent. of phosphates, while cane-sugar contains 2.9 per cent. There is a larger proportion of sodium salts in beet-sugar.

H. K. W. (77/9).—(1) Removing Blood-stains from Cloth.—The best method is to rub with water and then apply lin. saponis. (2) Hypertonic Hypochlorite Solution.—Hypertonicity is assured by adding 80 gr. of sodium chloride to a pint of the hypochlorite solution. In this case it is only desired that the solution shall contain a greater percentage of salts than the blood-serum. The methods of determining the condition of a fluid as regards its osmotic pressure are (1) the direct measurement by means of a semi-permeable membrane, and (2) by calculating the osmotic pressure from the depression of the freezing-point caused by the substance in solution. The Beckman apparatus is usually employed for the last-named method, which is founded on the work of Van 't Hoff and Arrhenius.

A. S. C. (88/9).—As a substitute for glycerin in preparations for the hair we suggested some time ago the trial of Turkey-red oil, but our inquirers have not reported whether the recommendation was a useful one.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," Aug. 15, 1867.

The South Kensington System.

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,, Scillæ, P.B., 6 lbs. @ 6d. lb.
*Acid. Acet. Glacial., 99%, 6 lbs. @ 3/11 lb.
,, Acetylo-Salicyl. 1 lb. @ 18/- lb.
,, Benz, B.P., 1 lb. @ 31/- lb.
,, Boric Pulv., 3 cwt. @ 71/- cwt.; 1 cwt. @ 73/6 cwt.; icvigd. cwt. or lb. extra.
,, Carbol. Xtls., 39/40; 56 lb. drums @ 1/11 lb.; 12 1-lb. Bots. @ 2/3 lb.; Single Bots. @ 2/6 lb.; Detached Cryst. 1 lb. @ 2/8 lb.; Crude Black, 45 gall. casks @ 1/6 gal.; 5 gal. drums @ 2/6 gall.; 1 gall. tins @ 3/- each.
,, Citric, cryst., B P, '85, 7 lbs. in bags @ 3/8 lb.; powder, ½d. lb. extra.
,, Diethylbarbituric, 1 oz. @ 8/6 oz.
,, Gallic, pur., P.B., 7 lbs. @ 6/9 lb.; 1 lb. @ 7/- lb.
,, Hydrobrom. 6 lbs. @ 1/8 lb.
* ,, Hydrochlor. Coml., cases of 4 2-gall. jars, 40/- each; 20 case lots @ 39/- each.
* ,, Hydrocyan. P.B., 6 lbs. @ 1/7 lb.; 1 lb. @ 2/- lb.; 36 1-oz. Vials @ 7/6 doz.
,, Oxalic Cryst., 1 cwt. @ 1/11½ lb.; 14 lbs. @ 2/1 lb.
,, Phosph. Dil. B.P., 6 lbs. @ 6d. lb.
,, Salicyl. pulv. 1 lb. @ 9/- lb.
,, Sulphur, Coml., cases, 4 2-gal. jars. @ each; 20 cases @ each.
,, Sulph. Aromat. B.P., 5 lbs. @ 4/8 lb.
,, Tannic. B.P., 1 lb. @ 7/6 lb.
,, Tart., cryst. or pulv. B.P., 1885, 7 lbs. @ 3/3 lb.; parv. ½d. lb. extra.
Adeps Benz., B.P., 28 lbs. @ 1/6 lb.; 7 lbs. @ 1/7 lb.
Ærugo Æris Pulv., 14 lbs. @ 2/6 lb.
Aloes Barb., English-ground, 28 lbs. @ 120/- cwt.; 7 lbs. @ 1/3 lb.
Aloes, Socot. 7 lbs. @ 1/5 lb.; powder, 7 lbs. @ 1/7 lb.
Aloin, B.P., 1 lb. @ 5/6 lb.
Ammon. Benz., 1 lb. @ 30/- lb.
Ammon. Brom. P.B., 7 lbs. @ 5/- lb.
Ammon. Carb. lump, 3 cwt. @ 7½d. lb.; 28 lbs. @ 8½d. lb.; 7 lbs. @ 9d. lb.; powder, ½d. lb. extra.
Ammon. Chlor., 99% pulv., 1 cwt. @ 64/- cwt.; 7 lbs. @ 8d. lb.; Batteries, 6/- cwt. extra.
Amyli Pulv., 10 cwt. @ cwt.; 2½ cwt. @ cwt.; 1 cwt. @ cwt.
Aniseed, English ground, 1 cwt. @ cwt.; 7 lbs. @ 1/4 lb.
Antim. Nig. Pulv., 7 lbs. @ 11d. lb.
Antim. Tart. Pulv., 7 lbs. @ 4/- lb.
Apiol, 1 lb. @ 27/6 lb.
*Aqua Anethi Conc. 1–40, 1 lb. @ 3/8 lb.
* ,, Anisi Conc. 1–40, 1 lb. @ 3/8 lb.
* ,, Aurant. Conc. 1–40, 1 lb. @ 6/11 lb.
* ,, Aurant. Trip., 6 lbs. @ 10d. lb.; 53 lbs. for 32/-
* ,, Cinnam. Conc. 1–40, 1 lb. @ 4/1 lb.
* ,, Laurocerasi, 6 lbs. @ 9d. lb.
* ,, Menth. Pip. Conc., 1–40, 1 lb. @ 3/9 lb.
* ,, Rosæ Conc. 1/40, 1 lb. @ 7/9 lb.
* ,, Rosæ Trip., 53 lbs. for 37/-; 6 lbs. @ 10d. lb.
* ,, Samb. Conc., 1–40, 1 lb. @ 6/11 lb.
* ,, Samb. Trip., 6 lbs. @ 10d. lb.
Araroba, fine powder, 7 lbs. @ 9/6 lb.; 1 lb. @ 10/- lb.
Argent. Nit., 6's to oz., 25 oz. @ 2/8 oz.; 1 oz. @ 2/9 oz.
Argent. Nit., Cryst., 25 oz. @ 2/7 oz.; 8 oz. @ 2/8 oz.
Arsenic, Alb. Pulv., 2 cwt. @ 110/- cwt.; 7 lbs. @ 1/1 lb.
Atropinæ Sulph., P.B., 1 oz. @ 135/- oz.
Auri Chlor., 6 doz. 15 gr. tubes @ 27/3 doz.; 1 doz. 15 gr. tubes @ 27/6 doz.

*Bals. Copaibæ, pure, 44 lbs. @ 5/6 lb.; 9 lbs.; @ 5/9 lb.; 1 lb. @ 5/11.
,, Peruv., P.B., 1 lb. @ 20/6 lb.
,, Sulphur, 7 lbs. @ 1/6 lb.
,, Tolut. B.P., 50 lb. @ 2/5 lb.; 1 lb. @ 2/10 lb.
Bismuth, P.B., Carb., 3 lbs. @ 13/6 lb.; 1 lb. @ 14/- lb.; subnit., 3 lbs. @ 12/6 lb.; 1 lb. @ 13/- lb.
,, Salicyl., 1 lb. @ 18/6 lb.
Boracic Mixture, 1 cwt. @ 95/- cwt.
Borax, 1 cwt. @ 44/6; powder 1/- extra.
Butyl-Chloral Hydras., P.B., 1 lb. @ lb.

Caffeine, P.B., 1 lb. @ 48/- lb.
Caffeinæ Cit., B.P., 1 lb. @ 32/- lb.
Calamina, powder, fine pink, 5 cwt. @ 25/- cwt.; 1 cwt. @ 28/- cwt.; 7 lbs. @ 4d. lb.
Calamine, B.P., 1885, 7 lbs. @ 1/3 lb.
Calcii Carb. Præcip., 5 cwt. @ 22/6 cwt.; 1 cwt. @ 26/- cwt.; 28 lbs. @ 30/- cwt.
,, Hydras., P.B., 1 cwt. @ 32/- cwt.; 7 lbs. @ 5½d. lb.
,, Hypophosph. Pur., P.B., 1 lb. @ 4/- lb.
,, Iodid., 1 lb. @ 21/6 lb.
Camphor, English Flowers, "not artificial," 5 lbs. @ 3/9 lb.; ½ oz. or ¼ oz. 7 lbs. @ 4/3 lb.; good white, about 95% as imported, 140 lbs. @ 2/4 lb.; 28 lbs. @ 2/6 lb.
Capsicine, soluble, 1 lb. @ 9/6 lb.
Carbo Animalis or Ligni, powder or lump, 1 cwt. @ 30/- cwt.; 28 lbs. @ 3½d. lb.
Cardamoms, 28 lbs. @ 2/6 lb.; 7 lbs. @ 3/- lb.
Carmine, Finest, 1 lb. @ 35/- lb.; No. 2, 1 lb. @ lb.
Cera Alba, B.P., White Moons, 28 lbs. @ 2/9 lb.; 4 lbs. @ 2/10 lb.; Flav. 1 lb. Blocks, 28 lbs. @ 2/5 lb.; 4 lbs. @ 2/6 lb.; 1 oz., ½ oz. tabs., 7 lbs. @ 2/7 lb.
Cerii Oxalas, 1 lb. @ 6/6 lb.
Cetaceum, No. 1, fine white, 64 lbs. @ 11d. lb.; 7 lbs. @ 1/2 lb.; powder, 7 lbs. @ 1/6 lb.
Chloral Hydras Cryst., B.P., 7 lbs. @ 11/3 lb.; 1 lb. @ 12/- lb.
Chlorodyne, 5 lbs. @ 3/- lb.
*Chloroform, pure, B.P., 12 8-lbs. @ 3/9 lb.; 8 lbs. @ 3/11 lb.; 6 1-lb. bots. @ 4/3 lb.
Cocaine Hydrochlor., 1 oz. @ 33/6.
Codeina, 1 oz. @ 27/6 oz.; Phosph., 1 oz. @ 25/- oz.; Hydrochlor. or Sulph., 1 oz. @ 25/- oz.
Colocynth, Apple, English ground, 1 cwt. @ 1/4 lb.; 28 lbs. @ 1/5 lb.; 7 lbs. @ 1/7 lb.
Composition Powder (Coffin's), 1 cwt. @ 70/- cwt.; 7 lbs. @ 9d. lb.
Conf. Sennæ, P.B., 14 lbs. @ 1/4 lb.; 7 lbs. @ 1/5 lb.
Cort. Aurant Exot. Shreds, 7 lbs. @ 2/4 lb.
,, Cinchon. Rub. (Quill), 7 lbs. @ 1/7 lb.
,, Ulmi Fulvæ, Pulv., 1 cwt. @ 11d. lb.; 7 lbs. @ 1/1 lb.
Cream of Tartar, 98% powder, 1 cwt. @ cwt.; 7 lbs. @ 2/6 lb.
Creasote Beechwood, P.B., 7 lbs. @ 17/- lb.
Creta c. Camph., 7 lbs. @ 1/- lb.
,, Gall. Pulv., in sacks, 10 cwt. @ 12/- cwt.; 1 cwt. @ 13/- cwt.; 14 lbs. @ 1¾d. lb.
,, Præparata, 7 lbs. in box @ 1/3 each.
Cubebæ, English Ground, 28 lbs. @ 3/8 lb.; 7 lbs. @ 3/10 lb.

*Dec. Aloes Co. Conc. 1–2, 6 lbs. @ 2/1 lb.; Sinecroco, 6 lbs. @ 1/4 lb.
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* ,, Senegæ Conc., 6 lbs. @ 2/11 lb.

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Emp. Picis, P.B., 7 lbs. @ 1/3 lb.
,, Plumbi, P.B., 7 lbs. @ 1/3 lb.
,, Resinæ, P.B., 7 lbs. @ 1/3 lb.
,, Roborans, 7 lbs. @ 1/3 lb.
Emulsio Ol. Morrhuæ, 5 lbs. @ 1/6 lb.
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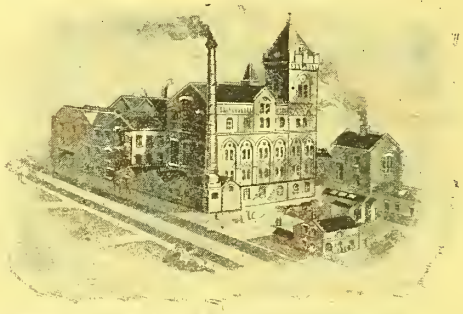

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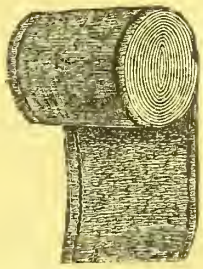

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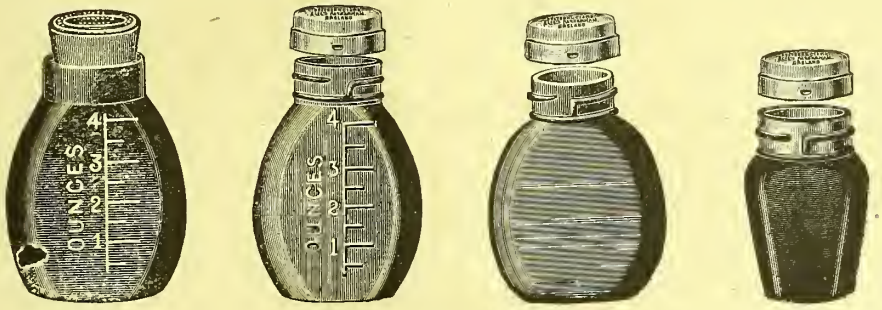

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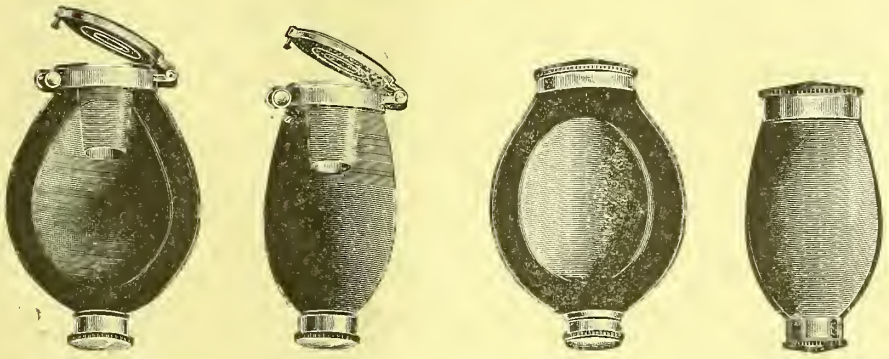

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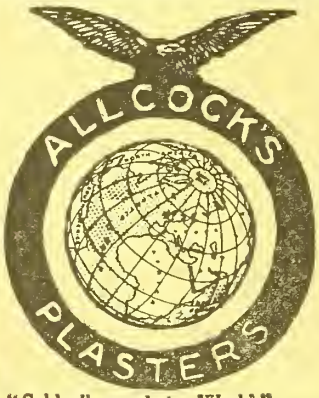

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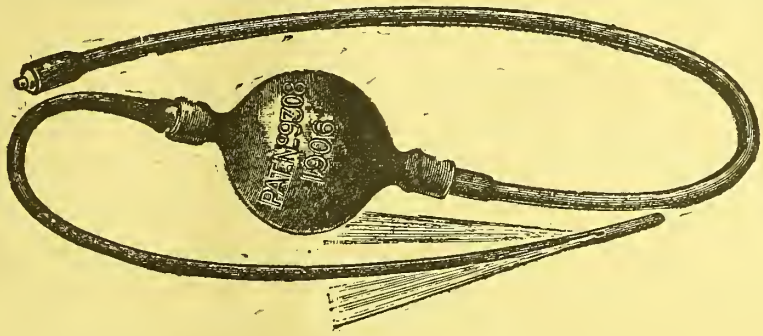

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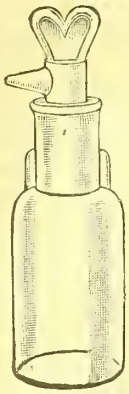

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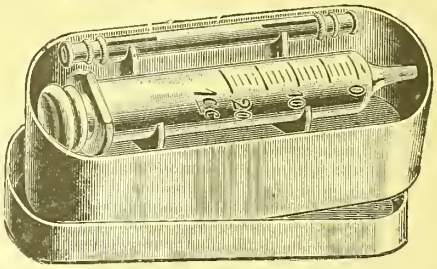

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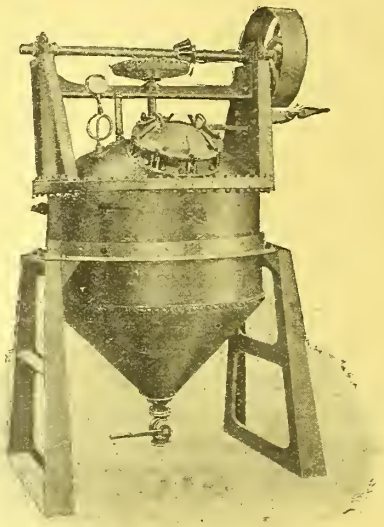

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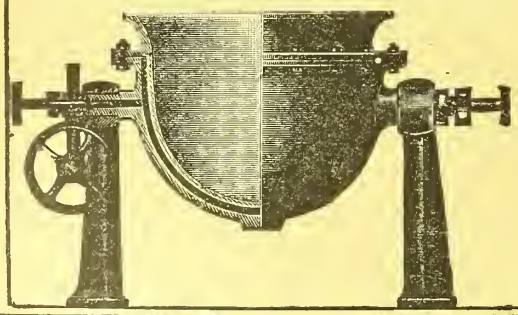

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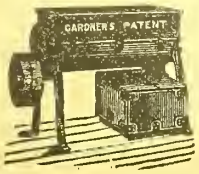

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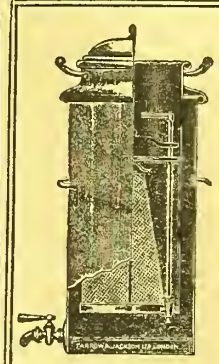

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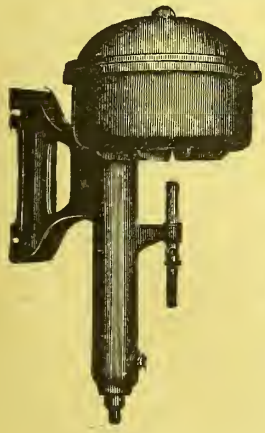

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Casimir Funk, *Journal of Physiology*, Vol. 43, p. 395, 1911; Vol. 45, p. 489, 1913; Vol. 46, p. 173, 1913; Vol. 47, p. 389, 1913.
British Medical Journal, 1914, p. 1348.
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Journal of State Medicine, June, 1912.
Hopkins, *Lancet*, Nov. 8, 1913; *Journal of Physiology*, Vol. 44, p. 361, 1912.
Osborne and Mendel, *Journal of Biological Chemistry*, Vol. 15, 1913; Vol. 16, 1913.

VITAMINES have revolutionised the old notions in regard to the ideas of physiologists on the subject of a perfect dietary.

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REAL TURTLE Soup Cubes
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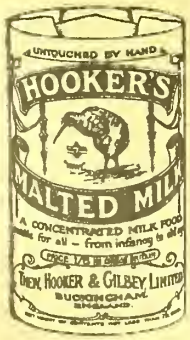

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With Inscriptions in any desired tint; also Plain or Embossed.
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"**YADIL**" is not advertised to the public, but is being made known to the medical profession as fast as possible. Remarkable successes have been obtained in hospital practice, and from hospitals the use of "**YADIL**" is spreading to the Medical profession. The number of prescriptions for "**YADIL**" is increasing rapidly, not only in London, but all over the Kingdom.

We make this announcement in order that Chemists called upon to fill prescriptions for "**YADIL**" may know where to obtain it. Orders should be placed through wholesale firms.

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Sizes - -	2 oz.	6 oz.	20 oz.	40 oz.
Retail Prices -	1/6	3/-	8/9	16/-

Sole Proprietors and Manufacturers:

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The Wigglesworth Way

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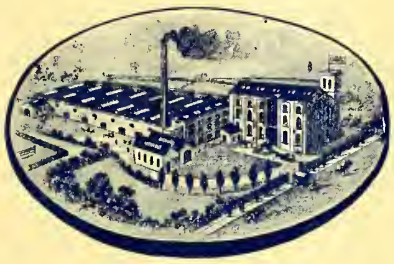
The pinch of the Corn is now being felt. Every sufferer—and there are thousands—is on the look-out for a means of relief from the sharp shooting pains these pests inflict.



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There are five lines to select from.

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The usual green plaster disc, the oval non-slip protector. The two-colour labelled box in silent salesman outer makes a most effective counter or window display.

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KURA KORN

Liquid Corn Paint. The bottle is enclosed in cardboard tube, with an attractive and striking label printed in colours.

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Extracts
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THE CHEMIST & DRUGGIST SUPPLEMENT.

OFFICE: 42 CANNON STREET, E.C. SATURDAY, AUGUST 18, 1917

This Supplement is Inserted in every number of The Chemist and Druggist.

CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

Telephone Number: City 2283

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1.—LONDON, W.—For immediate disposal, high-class Perfumery Business (Wholesale and Retail); intending investors with capital at command will find this a good investment; formerly the net profit was from £8,000 to £10,000 per annum.

2.—FINSBURY PARK (within easy distance of).—Ready-money Business, situate in busy main thoroughfare; returns, present rate, about £1,200 at fair prices; modern-fitted shop and ample stock; comfortable residence, with garden; immediate sale desired.

3.—DALSTON (Near).—Ready-money Business; established many years; held by Vendor upwards of 25; now retiring; returns about £650; *net profit* £250; comfortable residence; terms, valuation of stock and fixtures; part payment entertained.

4.—SURREY (Suburban).—Good middle-class Retail and Dispensing Business; returns show a steady increase and are now over £1,600; well-appointed shop, handsomely fitted in mahogany, in modern style and fully stocked; vendor will accept first reasonable offer.

5.—LONDON, N.E.—Brisk Ready-money Business; held by Vendor upwards of 25 years, now retiring; returns average between £1,100 and £1,200 per annum; net profit one-third Vendor's own property; new lease; price £550.

6.—LONDON, N.—Situate in main shopping thoroughfare, well-established Business; increasing income; returns between £1,000 and £1,100; profits exceed the usual rate of middle-class business; well-fitted shop and comfortable residence, with garden; price £600.

7.—NORTHERN SUBURB (Main Line of Rail).—For Disposal, a good but neglected Business returning, under Assistant, £1,270 at fair prices; books audited by accountant and stock taken annually; terms, small sum for goodwill and valuation of stock and fixtures.

8.—HOME COUNTY (Death Vacancy).—Middle-class Retail, also Photographic Business; returns, excluding Photographic, £546; comfortable residence with garden; rent £26; rates £7; no serious opposition; price £230, or near offer.

9.—BRIGHTON.—Retail and Dispensing Business situate in shopping thoroughfare in chief business centre; returns between £1,400 and £1,500; *gross profit last year* £570; well-appointed shop and comfortable residence; price about £1,000.

10.—SOUTH-WEST OF ENGLAND (Health Resort).—Good-class Retail, with excellent sale for own proprietaries which have a local and postal sale; returns average about £700, and *net profit* £275; well-appointed shop and residence; held on lease; terms £50, and valuation of stock and fixtures.

11.—LEICESTER (Near).—Cash Drug Store for disposal through owner having to join up; returns about £630; excellent opening for a qualified man; good residence with garden; rent £28; price £300, or valuation of stock and fixtures.

12.—SOUTH COAST.—Unopposed Mixed Country Retail Business with own Proprietaries; steadily increasing returns; now between £1,300 and £1,400; rent £45 for double-fronted shop and good seven-roomed house and garden; terms, lease and goodwill £120; stock and fixtures at valuation.

13.—BOURNEMOUTH.—Retail and Dispensing Business; held by vendor many years; returns £2,000 yearly at fair prices; terms, goodwill, £100; stock and fixtures by valuation.

14.—LAKE DISTRICT.—Mixed Business, with excellent sale for own Proprietaries; returns about £3,000; terms, stock and fixtures at valuation and sum for goodwill to be arranged equitably.

VALUATIONS FOR STOCKTAKING.

Messrs. O. & Co. desire to emphasize the necessity of a Periodical Statement of Account, by which means alone **Profit, the value of Business, &c.,** can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of **confusion and loss.**

Messrs. O. & Co. are prepared to undertake these essential duties, and will make **Special Terms** for such services.

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CHESTER, near Liverpool.—Fixtures and goodwill of an established Chemist's business for sale; business returns nearly £900 a year at the present time; owner removing Stock, etc. To be sold as a bargain. Chemist, 6 Martin Lane, Liscard.

LIVERPOOL.—Old-established Business in working-class district; well stocked; good profits; good house; low rental; under unqualified management, doing £12 weekly; price £200. Apply 50/9, Office of this Paper.

CHEMIST with two businesses and no assistance is "fed up," and wishes to sell one; established about 100 years; lovely country; no old stock; well fitted (badly neglected, managed by wife nearly two years); very good house; rent £26, or would sell property; rates low; gas and electric; would suit elderly man or unqualified; price £400; shops are in adjacent country towns in Yorkshire. "Beta" (51/35), Office of this Paper.

FOR Sale, high-class Chemist's Shop and Stock; special offer for discharged soldiers who are in the Chemical and Drug trade; 5 per cent. will be allowed off the amount of purchase. Apply the French Drug Stores, 67 Mare Street, Hackney, N.E.

FOR Disposal, Business prominently situated in main street of popular town within 30 miles of London; returns £2,000, with scope for increase; established 20 years; spacious shop and house on long lease; price, valuation of stock and fixtures only, about £1,200; fullest investigation and trial invited. Apply "Kent" (52/23), Office of this Paper.

GENUINE, old-established, good-class Family Cash Business in best position main road 12 miles out of London; large shop, fitted mahogany, plate-glass front; very long lease at low rent; fullest investigation invited; trial allowed; net profit nearly £300 a year; price £425; part might remain. "Quinine" (53/17), Office of this Paper.

PROPRIETOR will sell small genuine old-established Business for £180, cash down, the price of Stock only; the business has always been carried on as a good-class connexion one, but the neighbourhood is now ready for cheap Cash trade. "London, N.W." (50/7), Office of this Paper.

£50.—FOR quick Sale this amount buys Drug Store in good suburb in Midland City; suit qualified or unqualified with capital; good house, garden, double-fronted shop; conveniently fitted; low stock; rent £22 and rates. Apply 53/19, Office of this Paper.

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3.—KING'S CROSS (close to Station).—Death vacancy; for quick sale; profitable Cash Retail; returns £18 to £20 weekly, under management; plenty of scope; low rent; price simply valuation of stock and fixtures, or first reasonable offer accepted.

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Appointments for stocktakings and valuations should be made early. Full particulars and terms sent on application. See page 90 of the *C. & D. Diary*, 1917.

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EGYPT.—Firm with well-established connection among buyers of Chemical and Pharmaceutical products, Druggists' Sundries, Surgical Instruments, Perfumery and Toilet articles, desires to represent first-class manufacturing houses; headquarters in Alexandria; good references. Write 47/38, Office of this Paper.

GLASGOW and West of Scotland.—Gentleman open for Agencies; splendid connection Drug and allied trades; duration of war or permanent. Apply 44/17, Office of this Paper.

TENDERS.

IN PRIZE.

WE are instructed to sell for account of the Marshal of the Admiralty the undermentioned goods, subject to the usual restrictions as to export. We shall be pleased to receive offers at our address not later than MONDAY, 27th AUGUST, 1917.

Ex S.S. "ROMNEY."

About 5 Barrels and 10 Cases FRUIT STONE KERNEL OIL (probably Apricot Kernel Oil), lying at Hull.

Samples may be seen at our Offices, where also any further information may be obtained.

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Telephone: Avenue 4451 (3 lines).

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FOR Sale, complete Fittings, mahogany, for small Pharmacy; also Shop Rounds; first reasonable offer accepted. Apply 54/14, Office of this Paper.

FOURTEEN pounds of Saccharin Tablets, grain half 330 in 1, 110s. per pound; cash with order, post paid. Walton, Chemist, Batley Carr.

REGISTERED Trade Marks, Nos. 366.573 and 374.809, "Odonol" and "Odorol"; cash offer desired. Lyndwood & Co., 71 High Holborn, London, W.C. 1.

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APPRENTICE; young lady; tall; active; passed Preliminary; recommended. Apply Evans, Chemist, Port Dinorwic.

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GOOD opportunity for man or woman with expert experience in Drying Herbs for the trade, to take part in an established Drug and Herb-growing business; working capital required about £500, to remain entirely under owner's control. Apply 100/64, Office of this Paper.

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DOUBLE-FRONTED Shop and House to let in main road Watford; thickly populated part; been Chemist's many years; good living accommodation; rent £45. Keys, Broad & Patey, Auctioneers, Watford.

SHOP to be Let; double-fronted; splendidly situated in shopping centre of main road, and fitted as a Chemist's; occupied by Chemist for nearly 50 years; good business just closed owing to illness; fixtures at valuation; rent £50 per annum, tenant paying rates and taxes. Apply Harry Hooper & Co., Surveyors and Valuers, Estate Offices, Millwall, 14.

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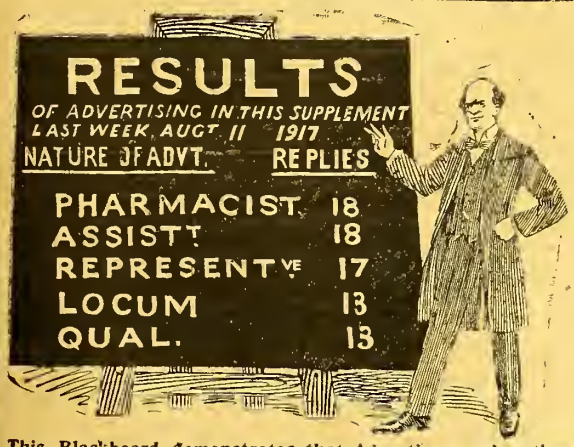

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RETAIL.

BELPER.—Wanted at once, qualified Dispenser and Bookkeeper. Full particulars, Doctor Allen, Belper.

BIRMINGHAM.—Capable unqualified man required to manage a Drug Store; must be over military age or have been rejected; salary and good commission on profits; lucrative berth to an energetic man. "Stores." (52/37), Office of this Paper.

BLACKPOOL.—Unqualified, experienced Assistant Dispenser at once; smart Counterman; one with knowledge of Photography preferred; short hours; permanency. State age, height, photograph if possible (to be returned), experience, references, and salary required (outdoors), to Hall, Chemist, Talbot Square, Blackpool.

BOLTON.—Qualified Assistant wanted for N.H.I. Department. State full particulars as to age, photo if possible, Blain, Pharmaceutical Chemists, 25 Market Street, Bolton, Lancs.

BRISTOL.—Henry Hodder & Co., Ltd., have vacancies for qualified Branch Manager and also unqualified Assistant; permanencies for competent men; hours 8.30 to 8, Saturdays to 9, closed Wednesdays 1, no Sunday duty; outdoors. Age, salary, references, etc., to Managing Director, Hodders, Ltd., 5 Nelson Street, Bristol.

DUNSTABLE.—Lady Assistant required for Dispensing and Light Retail; no Sunday or after business duty; easy, comfortable berth; inexpensive lodgings near; pleasant town. State age, experience, salary required (outdoors), reference, and when disengaged, J. H. Herington, Pharmacist, Dunstable, Beds.

GUILDFORD.—Wanted, competent Assistant; qualification not essential; ineligible for Army; good-class Retail, Dispensing, and Photographic business. Give full particulars as to age, experience, and salary to Tavener, Pharmacist.

HULL.—Wanted, a qualified Assistant for light N.H.I. Dispensing and part assistance at Retail Counter; state salary and when disengaged; easy hours. Apply 47/3, Office of this Paper.

JERSEY.—Locum required for two weeks at earliest date possible; short hours; closing half-day and Sunday free. Send reference and state salary required to Renoufs, Ltd., Pharmacists, Burrard Street, Jersey.

KENT.—Good opening for capable unqualified male Assistant; permanency, with progressive salary. "Kent" (52/373), Office of this Paper.

KIDDERMINSTER.—Capable Counterman and Dispenser; good-class Retail; ineligible or discharged; September 3-10; permanency if suitable. Morgan & Lawley.

LEICESTER.—Wanted, an Assistant (lady or gentleman), for Dispensing, Counter, etc.; splendid opportunity to acquire a unique experience; outdoors. State salary expected and fullest particulars, Goodess, Pharmacist, Market Street, Leicester.

LIVERPOOL.—Qualified Manager required for Branch; must be over military age; salary £200 per annum. Full particulars in first letter to "Lancastrian" (52/39), Office of this Paper.

LIVERPOOL.—Assistant; qualified; middle-aged or elderly; comfortable post; hours 9.30 to 8 P.M.; half-day weekly; alternate Sunday 6 to 8 P.M. Apply, stating salary (photo if possible), 53/21, Office of this Paper.

LONDON, N.W. (Hampstead Heath).—Junior wanted for Dispensing Counter; comfortable berth; some time given for study if required; lady might be suitable if experienced. Please write, giving full particulars, including salary required, or call after 2 p.m., H. Williams, Dispensing Chemist, 31 Heath Street, Hampstead, N.W. 3.

LONDON, W.—One Assistant wanted; one accustomed to West-End business preferred; immediate vacancy. Rouse & Co., Wigmore Street, W.

MANCHESTER.—Temporary assistance required for fortnight commencing September 3; please state age, salary required, references, etc. Apply Butcher & Simmons, 329 Chapel Street, Salford.

MANCHESTER DISTRICT.—Qualified Manager required, also Junior Assistant (both outdoors). Full particulars of previous experience to T. & W. Woodruff, Chemists, Cheadle, Cheshire.

MANCHESTER.—Young lady, with some Counter and General experience, required for Chemist's establishment situate in working-class district; comfortable; permanency. "Manchester" 52/371, Office of this Paper.

MANCHESTER.—A young lady required who has had experience in a Retail business and who is a capable Dispenser; no Insurance or Sunday work. Particulars of age and experience to 103/630, Office of this Paper

N.W.—ACTIVE and competent Assistant for good-class Dispensing and Counter work; outdoors; ineligible for military service; not much N.H.I. work; reasonable hours; please state experience, salary required, and if free. S. P. Sayers, 7 Brent Street, Hendon, N.W. 4.

OXFORD.—Qualified Manager for branch business; lady or gentleman (ineligible); permanency; hours, 8.30 to 8, Saturdays to 9, closed Thursdays 1 p.m.; outdoors. State age, salary, references, etc., Burbank, Chemist, 116 Walton Street, Oxford.

RHYL.—Wanted at once, experienced Assistant; unqualified (outdoors); easy hours. State age, salary required, and full particulars to Ashfield, High Street.

SHEFFIELD.—Junior Assistant, ineligible male or young lady, for Counter; outdoors. Please give full particulars of experience, salary required, and enclose photo, H. G. Williams, 118 The Moor, Sheffield.

SHEFFIELD.—Lady Dispensing and assist occasionally at Counter; hours 9 to 7 p.m., Thursdays 9 to 1 p.m., Saturdays 8.30 p.m.; tea provided. State age, height, experience, salary, when at liberty, and enclose photo if possible, G. T. W., Newsholme, Ltd., Chemists, 27 High Street, Sheffield.

SOUTH OF ENGLAND.—Assistant required (male or female); free removal; permanency with good salary. Timothy White Co., Ltd., Chemists, Portsmouth.

STOCKTON-ON-TEES.—Wanted at once, a competent Dispenser; an attractive post to a suitable person. Apply Drs. Densham & Hall, Stockton-on-Tees.

SURREY.—Wanted, Assistant, either sex; qualified or unqualified; good and progressive salary; no Sunday duty; outdoors. Apply 51/20, Office of this Paper.

TYNESIDE.—Wanted, young lady with Counter and General experience; able to take charge of shop in working-class district; good wages for suitable person. Send full particulars to Edwards, Chemist, Tyne Dock.

WAKEFIELD.—Wanted immediately, Manager or Locum (energetic, obliging) for middle-class Pharmacy; General Prescribing, L.H.I., and Light Retail; exempted if of military age. Apply, stating full particulars, with references and salary required, Green, "Bella Vista," Westfield Park, Wakefield.

WEYMOUTH.—We shortly require the services of a qualified or unqualified gentleman or qualified lady; a good knowledge of the Photographic trade is essential. State full particulars and salary desired in first letter, Cole & Son, Mary Street, Weymouth.

WISBECH.—Wanted, a reliable Assistant (outdoor) for good-class country business; small amount of N.H.I.; short hours; young lady and porter kept. F. Oldham, Chemist, Wisbech.

WOLVERHAMPTON.—Dispenser, lady or man, ineligible for the Army, in good-class Store business; easy hours; no Sunday or night duty. Send full particulars of experience, age and salary desired, to Martyn's Stores, Ltd., 26 Queen Street, Wolverhampton.

A UNIQUE opportunity occurs for an intelligent man to make an income of from £250 to £300 a year; qualifications essential are organising ability, energy, knowledge of Photography, and £250 capital. Apply 50/36, Office of this Paper.

ASSISTANT (either sex), with Dispensing and Counter experience and quick; short hours; no Sunday work. State salary asked (outdoors) and all particulars, Morrison, Tring.

ASSISTANT wanted for Dispensing and Counter; good-class business; large healthy shop to work in; hours 9 a.m. to 8 p.m., Thursdays 1 p.m., alternate Sundays 6 p.m. to 9 p.m.; applicants must have good references. Apply Gould, Chemist, 10 High Road, Chiswick, W. Telephone, Chiswick, 1428.

ASSISTANT Manager or Senior (ineligible) for Dispensing and high-class Retail; married or single. Apply J. E. Savage, Crouch End, N.

BRANCH Manager (qualified) wanted immediately; must be over military age or ineligible; knowledge of Photography essential; good salary to good man. Apply 51/701, Office of this Paper.

DISPENSER and Counterman wanted, unqualified, with some Photographic experience; must be ineligible or over military age. Apply, stating salary required, and enclosing, if possible, recent photograph, to "Progress" (51/7), Office of this Paper.

DOCTOR requires lady for Dispensing; evenings only, 6 till 9 p.m.; a learner entertained; Walworth district. Apply in first instance to Thornton, 4 Stratford Road, Marloes Road, Kensington, W.

DRUG Store Manager wanted for London suburb at once; outdoors; no Sunday work or Dispensing. State age, salary expected, and experience to 52/22, Office of this Paper.

ELDERLY or retired Pharmacist wanted for six or eight weeks to take charge of a small Branch where duties are exceedingly light and hours easy; pleasant locality, on South Coast near Bournemouth. State full particulars, when disengaged, and salary required, to "H. A. B." (53/13), Office of this Paper.

HOLIDAYS.—Wanted, gentleman to take charge for one week. Please state when disengaged, with terms, to Wyatt, Chemist, Barnes.

LADY Dispenser for South Coast business; no Counter work. State previous experience and other particulars to "Saturn" (51/22), Office of this Paper.

LADY Dispenser wanted, with Counter experience, in a town near London; qualified preferred. Apply, giving experience and wages required (indoors) in the first instance, to J. R. Faulkner & Co., 173 Ladbroke Grove, W. 10.

LADY Dispenser to Medical man, Hall or Minor; preference given to some knowledge of Medical Dispensing; work not heavy; Bookkeeping not required; comfortable rooms with board obtainable on reasonable terms. State salary, "B." (50/5), Office of this Paper.

LOCUM wanted; September; duties and hours light; Hospital. State terms, references, etc., 52/32, Office of this Paper.

LOCUM.—Required, a competent Assistant for about two or three weeks as soon as possible, but not later than Monday the 27th, for light Family Retail and Photographic trade; no Sunday duty. Apply, with full particulars, references, and salary required (outdoors), to Shillcock & Sons, Bromley, Kent.

MANAGER; qualified, experienced, and energetic; £3 10s. per week and house; share profits; over military age or ineligible; permanency. "London" (52/372), Office of this Paper.

MESSRS. TIMOTHY WHITE CO., LTD., Chemists, Portsmouth, require a capable Pharmacist (male or female); easy hours; good and progressive salary, with excellent prospects; free removal.

OUTDOOR Junior or part-time Assistant wanted at once or soon for good-class Retail and Dispensing business in S.W. district; near several Schools of Pharmacy. Apply with usual particulars, enclosing photo, to Banbury, 390 Walworth Road, S.E.

PART-TIME lady for high-class Dispensing business, Islington and Wandsworth. Apply 71 East Hill, S.W. 18.

QUALIFIED Locum required, August 30 to September 14; two other Assistants kept; first-class Dispensing business. Sharman, Northwood.

QUALIFIED Assistant wanted, ineligible for Army, for country business in Midlands; Light Retail and N.H.I.; short hours; no Sunday or Thursday duty; Extractor preferred, but not essential; permanency to right man. "Rhei" (51/6), Office of this Paper.

SMART Locum at once for about four weeks; City business; short hours, no Sunday duty, close 1 p.m. Saturdays. Apply, stating full particulars and salary required, Hy. Lamplough, Ltd., 113 Holborn, E.C. 1.

SURGICAL Instrument Business Assistant for front shop. Address, stating age, wages expected, and duties accustomed to, Box "Surgical," Lee & Nightingale, Liverpool.

THE LORD DERBY WAR HOSPITAL, WARRINGTON.—Wanted, temporary Dispenser (female); must be fully qualified; salary 35s. per week. Applications, stating age, experience, qualifications, and references, must be sent to the Administrator at once.

UNQUALIFIED (ineligible) Assistant required; high-class Dispensing business. State experience, salary required, enclose photo, Barnes & Marsh, Putney, S.W. 15.

WANTED at once, lady Dispenser and Bookkeeper for old-established non-panel practice in Lancashire. In reply state salary required and references, 49/19, Office of this Paper.

WANTED, qualified Assistant, ineligible, or elderly man not objected to; short hours; one o'clock Saturdays; no Sunday duty. Apply Staff Superintendent, C.S.S.A., Ltd., 136 Queen Victoria Street, E.C.

WANTED, a lady Assistant for middle-class Retail and National Insurance Dispensing in a small seaside Pharmacy; S.E. Coast; kindly state age, experience, qualifications if any, whether outdoors or indoors preferred, to "Sea Beach" (53/1), Office of this Paper.

YOUNG lady Dispenser required; one with Counter experience preferred; must have the Apothecaries' Hall qualification. Apply, stating salary required, to 51/70, Office of this Paper.

£3 WEEKLY to commence.—A vacancy will occur about end of September for capable, unqualified Assistant in medium-class Cash business in S.W. London suburb; must be ineligible military service, a reliable Dispenser, and a tactful and obliging Counterman; comfortable permanency, with excellent prospects for right man; highest references essential; please state age, height, and full particulars of experience; all replies treated in strict confidence. Apply 45/31, Office of this Paper.

£3 5s. per week for capable unqualified Managing Assistant; ineligible for the Army; good-class Store business in West Riding; must be smart Salesman and Window-dresser, and have good references; short hours and comfortable permanency. Apply, stating age, height, and references, to 53/6, Office of this Paper.

WHOLESALE.

A DENTIST and Chemical Manufacturer (both limited companies doing good business) desires to meet qualified Chemist with Analytical and Manufacturing experience; easy hours; small investment necessary; permanent position with very exceptional prospects; guaranteed returns and good salary. Write, giving fullest particulars, to Maurice Dadley, Chartered Accountant, Hertford Street, Coventry.

A VACANCY occurs for a very competent gentleman to assist in the management of a large Wholesale Drug House in the provinces; the applicant must have had experience in a house of good standing, and have full knowledge of all departments of the trade, especially on the scientific side, and be well informed in modern Therapeutics; should be a capable business correspondent, a good organiser, and accustomed to the proper handling of staff; a knowledge of the Instrument trade would be useful; a gentleman holding a qualification such as the Pharmaceutical (Major), F.I.C., or a University degree in Science would be preferred. Apply 93/25, Office of this Paper.

CHEMIST (Analytical), male or female, required immediately; salary according to ability. Burrell & Co., Ltd., Burrell's Wharf, Millwall, E. 14.

CLERK with good knowledge of Drug Trade; experienced in pricing and extending invoices; good salary to suitable applicant; must be ineligible. Also an Assistant with knowledge of the Instrument trade required. Apply, with full particulars, to R. Sumner & Co., Ltd., 40 Hanover Street, Liverpool.

FOR Wales and Ireland, to reside on territory, an energetic lady or gentleman Representative wanted for a leading Packed Goods and Manufacturing House; one who has a good connection amongst Chemists and possesses a sterling reputation for Salesmanship; gentleman must be ineligible for military service; salary, expenses, and commission. State age, wage, experience, and full particulars to "Progress" (95/32), Office of this Paper.

LONDON firm of Manufacturing Sundriesmen require Warehouse Assistants; experienced preferred; wages according to ability; permanency; good prospects. Full particulars to 105/6, Office of this Paper.

LONDON Traveller, of established connection with high-class West-End Stores, Chemists, and Hairdressers, to introduce new British Lustre Cream for the Hair; good terms of commission for orders secured. Write, giving business particulars, present experience (confidence respected), Beau Nash Co., 158 Fleet Street, E.C. Personal inquiries cannot receive attention.

PACKER; light work; easy hours; must be steady and reliable. Anglo-French Drug Co., Ltd., Garnage Buildings, Holborn.

REQUIRED for Stocktaking, Pricers for Patents and Drugs; must be reliable and temperate; commencing September for two months. Apply 53/20, Office of this Paper.

SHORTHAND Typist (experienced) for Order Copying and Correspondence; knowledge of Drug Trade an advantage. State experience and salary required. Harker, Stagg & Morgan, Ltd., Devon Wharf, Emmott Street, Mile End.

WANTED, an Assistant Chemist for Cement Testing; candidates eligible for military service or employed on Government work will not be considered; salary 45s. per week. Apply by letter, stating age, etc., to Box No. 830, c/o Street's, 8 Serle Street, W.C.

WHOLESALE Chemists.—Counter hands, wet and dry, required at once; good wages to experienced men. Burgoyne, Burbidges & Co., Ltd., East Ham, E. 6.

SITUATIONS OPEN.

(Colonial, Indian and Foreign.)

3s. 6d. for 50 words or less; 6d. for every 10 words or less beyond, prepaid. The Advertiser may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of 6d.

JAPAN.—Wanted immediately, an Assistant (qualified preferred) in a first-class Chemist's business at Kobe; must be ineligible for the Army. Send for full particulars, with photo, to J. W. Franklin, 28 Alleyn Road, London, S.E. 21.

QUALIFIED man, free of military service, for a first-class business in Colombo; four years' engagement; second-class passage paid out. Apply "G. K." (103/20), Office of this Paper.

SITUATIONS WANTED.

1s. for 12 words or less; 6d. for every 10 words or less beyond, prepaid.

The **Advertiser** may, if preferred, have replies addressed to this Office, and forwarded on payment of an additional charge of **6d.**

[HOME.]

RETAIL.

AS Buyer and Manager.—Qualified Chemist requires position of trust in big business; 33 years' experience in London (West-End) and provinces, also South of France; capable and energetic; aged 50; good address; excellent references. Apply 73/2, Office of this Paper.

ASSISTANT Dispenser, age 19, unqualified, seeks post; Hospital preferred. Miss D. Lawrence, 83 Warwick Avenue, Maida Vale, London.

ASSISTANT; Dispensing; Counter; over military age; Extractor; Midlands preferred; disengaged shortly. "Calcium" (51/18), Office of this Paper.

BRANCH Manager; Hall qualification; abstainer; single; 55; no infirmity; London experience; country town preferred; no Photography. "3.," 14 Robin Hood Lane, Knaphill, Surrey.

C3, conditional; unqualified; married; assist or Manager; 35; all round; seaside or near. Apply 50/37, Office of this Paper.

CHEMIST'S son requires situation in good business; age 16; getting very useful; comfy home. Offers salary, etc., Mr. Coombes, Chemist, Great Missenden.

DISPENSER (outdoors) to Medical man; good references and experience; over military age; disengaged; London or suburbs; state salary. Apply 54/12, Office of this Paper.

ELDERLY qualified Chemist desires an engagement. Address 134 Elthorne Road, N. 1.

EXPERIENCED Chemist, over military age, requires post as Manager; first-class business only; provincial town preferred; excellent references. Apply 52/20, Office of this Paper.

EXPERIENCED Assistant.—Young man requires place as Locum, September 10 to 22; high-class Retail, Dispensing; Midlands or North preferred, not essential. "Kama" (50/8), Office of this Paper.

EXPERIENCED Dispenser-Bookkeeper free September; daughter of Medical man; qualified 1909; present post 3½ years; two guineas. Apply 51/27, Office of this Paper.

HOSPITAL Dispenser; Locum; qualified. Irving, 66 Rowfant Road, Balham, S.W. 17.

JUNIOR, 21, ineligible, energetic, early October, seeks N.H.I. berth. Davies, Pharmacy, Hirwain.

LADY Dispenser, qualified, experienced, good references, desires post in London with Doctor or in Hospital or Institution. Apply 51/25, Office of this Paper.

LADY (unqualified) requires position as Assistant; Hospital or Doctor; London district preferred. "R." (52/5), Office of this Paper.

LADY Dispenser; Hall qualification (2½ years with Doctors, 2 years in Pharmacy); Doctor or Institute preferred. "Don," 10 Broadmead Road, Folkestone.

LADY Dispenser; Hall; Doctor or Institution; London. Edwards, 27 Parthenia Road, S.W. 6.

LADY Assistant; Dispensing Counter experience; 19; Lancaster preferred; state salary offered. Standish, 13 Dymock Road, Preston, Lancs.

LADY Dispenser (Hall) seeks post; London preferred. Miss Demarquet, Spring Bank, Bamford, Rochdale, Lancs.

LADY Dispenser (unqualified) seeks post with Doctor or Chemist; London or near; outdoors. "K. R.," 21 Revelstoke Road, Wimbledon Park.

LADY Dispenser (Hall) wants Locum at once; Southsea. Oakdene, Park Gate Road, Wallington, Surrey.

LADY Dispenser (Hall) seeks post Hospital, Doctor or Institution; good references. Apply 53/14, Office of this Paper.

LADY (22) seeks Dispensing and Manufacturing (Liverpool); studying for Hall; Chemist's reference. Apply 53/12, Office of this Paper.

LADY Dispenser (Hall certificate) desires post temporary or permanent; Retail experience. Miss Cook, 24 Colfe Road, Forest Hill, S.E. 23.

LOCUM; free August 27 to September 8; qualified, reliable, experienced; South preferred. Apply 47/11, Office of this Paper.

LOCUM.—Lady Dispenser, Hall qualification, experienced, is disengaged from August 24; excellent testimonials. Address Miss Drew, 9 Cumberland Place, Southampton.

LOCUM or permanent; good all-round man; 24 years' experience; disengaged. Leeson, 90 Boundaries Road, Balham, S.W.

LOCUM, qualified, 40, disengaged one month. Apply Hume, 8 Cecil Avenue, Wembley.

LOCUM, 30 years' wide experience Hospital, Pharmaceutical, vacant September 3 forward. M. Smith, Chemist (Manchester), 55 Freemasons Road, Custom House, London, E. 16.

M.P.S.; 35; married; ineligible; thoroughly experienced and competent Manager; disengaged September. Apply 51/21, Office of this Paper.

M.P.S. as Manager, with wife (experienced) as Assistant; ineligible. Apply "Mabon" (54/25), Office of this Paper.

MANAGER, qualified, age 43, abstainer, married, desires change; highest references from present employer; varied experience; state salary offered. "Chemist" (51/12), Office of this Paper.

MANAGER in good-class business; experienced; good Photographic knowledge; highest testimonials. M. P. S., 81 East Street, Bridport.

MANAGER Drug Stores; unqualified; good Dispenser, Prescriber, and Salesman; married; no family; long experience; middle-aged; tall; disengaged shortly. "Chemist," 156 High Street, Eltham, S.E.

MANAGEMENT with view to purchase. Particulars to C. Pearson, M.P.S., 142 Love Lane, Heaton Norris, Stockport.

PHARMACIST; Locum; reliable; excellent testimonials. Apply 52/30, Office of this Paper.

QUALIFIED, active, experienced Manager, ineligible, wishing study Medicine; free daily from 5; all day Saturday; Sunday duty as required; married; 34. "London" (51/30), Office of this Paper.

QUALIFIED, 50, married, no family, abstainer, first-class experience, desires responsible position. Apply 51/24, Office of this Paper.

QUALIFIED; Locum or permanent; used to managing; experienced in all branches; Manchester preferred; C3; free August 20. "Statim," 62 Heywood Street, Cheetham, Manchester.

QUALIFIED, best experience and references, military exempted, desires change; hours 9 to 6; City or Hospital preferred, but not essential. "Eugenol" (53/16), Office of this Paper.

UNQUALIFIED; 38; conditional exemption; single; London and other experience. State salary, "Dispenser" (52/25), Office of this Paper.

UNQUALIFIED; over military age; good all-round experience; abstainer; Prescriber; Optics; take sole charge. "Energetic" (51/26), Office of this Paper.

YOUNG lady requires situation; 3½ years' Stock and Counter experience; London, W. or S.W. preferred. "B.," 1 Duke Road, Chiswick, W. 4.

WHOLESALE.

CHEMIST, Major qualification, requires position in Wholesale or Manufacturing Laboratory; over military age. Particulars to "W.," 98 Talbot Road, Old Trafford, Manchester.

CHEMIST, age 43, fully qualified, desires appointment with Wholesale or Manufacturing firm; original and practical; 10 years' London experience as Laboratory Manager; only permanency entertained; salary, etc., according to arrangement. Apply 54/26, Office of this Paper.

REPRESENTATIVE.—An experienced, qualified Chemist, over military age, leaving Retail, seeks appointment as sole Representative for good Drug or Chemical house, or is open to entertain two or three agencies for good going lines; territory Somerset, Devon and Cornwall, or South Wales. Write "Burnham" (50/3), Office of this Paper.

REPRESENTATIVE, with first-class connection amongst Chemists, would like good line on commission. Apply 53/30, Office of this Paper.

RETAIL.—Qualified Pharmacist desires suitable post in Wholesale house; age 42; married. "Lux" (53/10), Office of this Paper.

TRAVELLING Representative seeks new appointment; extensive connection amongst Chemists, Stores, London, Home Counties, South Coast; Proprietary house preferred. Apply 50/17, Office of this Paper.

YOUNG man (discharged) age 21 desires to assist in making Pharmaceutical Prescriptions, etc., for Wholesale house; London or provinces. Apply 51/29, Office of this Paper.

MISCELLANEOUS.

MCADAM & TUCKNISS, Stock and Share Brokers, Bank Chambers, Blackheath, S.E. Established 1898. Telephone: 81 Lee Green.

Shares for Sale (free of commission, subject).—200 Claudius Ash Prefs., 19*s*.; 50 W. J. Bush Prefs., 75*s*.; 3 Camwal Debs., £35 C.D.; 46 Prefs., 6*s*. 3*d*.; 200 Bovril Ord., 20*s*. 3*d*. X.D.; 200 Mellin's Food 6% Prefs., 13*s*. 6*d*.; 81 Lever "C" Prefs., 20*s*. 6*d*.; 150 Sanitas, 21*s*.; 190 Lewis & Burrows Ord., 6*s*. 6*d*.; 500 Lewis & Burrows 6% Prefs., 13*s*. 10½*d*.

Wanted (subject).—Allenbury Prefs., 18*s*. 9*d*.; Wright, Layman Prefs., 18*s*. 9*d*.

Every effort made to effect business for Buyers and Sellers in all Stocks and Shares. Bankers, London County and Westminster.

WASTE PAPER for Munitions.—Wanted, office books, old letters, newspapers, brown paper, cardboard, all kinds waste; high prices; prompt cash. Send immediately by goods train, "carriage forward," to British National Waste Co., 1 Yardley Street, London, W.C. 1.

SECOND-HAND Chemists' Fittings.—We have an exceptionally fine selection of these in all sizes; prices are right, and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, RUDDUCK & CO., 262 Old Street, London, E.C.

SHOWCASES and Fittings.—Large quantity on hand: Wall Cases, Dispensing Screens, Drug Fittings, Counters, Silent Salesmen, Counter Cases, etc. Write inquiries, PHILIP JOSEPHS & SONS, LTD., 93 Old Street, London, E.C. 1

100,000 SACCHARINE Tablets (½ gr. in 1), 17*s*. per 1,000, 16*s*. 9*d*. per 1,000 for 5,000; cash with order. R. Hoult, Wholesale Druggist, 73 Elford Grove, Leeds.

WE CAN DELIVER PROMPTLY

PASTILLES (Pharmaceutical Quality).

Antiseptic Throat
Glycerine
Glycerine and Black Currant
Eucalyptus and Menthol
Etc. Etc.

4-lb. free tins, **1/9** per lb.

Also in

1-oz. tins at **2/6** doz.; 2-oz. tins, **4/-** doz.; 4-oz. tins, **7/6** doz.

CAPSULES.

	Per 1,000.		Boxes of 24.
Santal Oil, 5 m. ...	**48/-**	...	**16/-** doz.
" " 10 drops	**72/-**	...	**23/6** doz.
" " 10 m.	**98/-**	...	**31/-** doz.

SACCHARINE TABLETS

½ gr. 330 in 1.

per lb.	....	**120/-**	Cash with Order.
100's	....	**22/6** doz.	
200's	....	**44/-** doz.	
500's	....	**106/-** doz.	
1,000's	....	**210/-** doz.	

JULES DENOUAL & CO.,
Carlton Works,
ASYLUM ROAD, S.E. 15.

WAR WANTS EXCHANGE.

For the terms upon which announcements are inserted herein see Supplement for August 11, p. xxxiv.

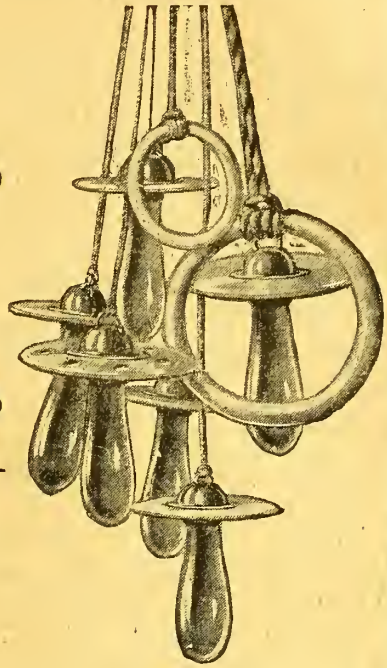
FOR DISPOSAL.

Argent. nit. cryst., 4 oz. (54/140)
Atropine sulph., ½ oz. (54/140)
Biomalt, 36 tins (54/140)
Bismuth salicyl., 8 oz. (54/140)
Bromo mangan., 4 bottles (54/140)
Colchicine (Merck.), 3 grams (54/140)
Chloral hydras, 1 lb. (54/140)
Ferro mangan., 6 bottles (54/140)
Guaiacol carb., 4 oz. (54/140)
Morph. hydrochlor., 1 oz. (54/140)
Morph. tart., 1 oz. (54/140)
Phenacetin tablets, gr. v. (52/21)
Saccharin, ¼ oz. (54/140)
Sulphonal, 2 oz. (54/140)

WANTED.

Adalin tablets (103/63)
Athenstaedt's tr. ferri (54/11)
Butyl chloral hydrate (94/16)
Chinosol soloids (103/63)
Chinoral (103/63)
Colgate's shaving-sticks (103/63)
Cycloform (103/63)
Elcaya crême (103/63)
Eugallol (103/63)
Euresol pro capillis (103/63)
Glycerin, 7 lb. to ½ cwt. (53/29)
Lenigallol (103/63)
Migrainine (103/63)
Nattalan (103/63)
Orthoform (103/63)
Pond's vanishing cream (103/63)
Pond's vanishing cream (54/11)
Pyoktannin (94/16)
Rhinoculin cream (103/63)
Tumenol ammon. (103/63)

Doctors and "Eversafe" Baby Pacifiers.



The following extract from "The Chemist & Druggist," July 28, is worthy of special attention from all Chemists.

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EIKONOGEN; state quantity and price. Hinchcliffes, Photographers, Leicester.
17s. KODAK Developing Tank; state spot cash price. Needham's, 297 Edgware Road, W. 2.
WANTED, Chemical Balance; suitable for student. Particulars, 5 Darlington Street, Wigan.
SAL. Hepatica, 2s. 6d. and 5s. State quantities and price, Newsholme's, Chemists, Sheffield.
WANTED, 8 oz. Round-shouldered Vials; any tint; any quantity. Tydeman, Weston-super-Mare.
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TABLET Machines (hand or power) wanted. Make and full particulars to 53/3, Office of this Paper.
WINDOW Shelves, Standard Bars, and Brackets. Apply T. Andrews, 126 Stephendale Road, Fulham.
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WINES and Spirits wanted; any quantity; bulk or bottled; proprietary or other. Particulars to Greenwood, Chemist, Lye, Stourbridge.

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